

DEPARTMENT OF THE ARMY

Procurement Programs



DTIC QUALITY INSPECTED 2

19980305 067

Committee Staff Procurement Backup Book
FY 1999 Budget Estimates

AIRCRAFT PROCUREMENT, ARMY

DISTRIBUTION STATEMENT A

Approved for public release
Distribution Unlimited

APPROPRIATION

February 1998

Index for AIRCRAFT PROCUREMENT, ARMY

Blin	Nomenclature	SSN	Filename	Page Number
1	P1 EXHIBIT			P1-1
2	P1M EXHIBIT			P1M -1
3	ARL (TIARA)	A11500	19342103.99P	1
4	UC-35 (MEDIUM RANGE) AIRCRAFT	A11300	19440147.99P	6
5	GUARDRAIL COMMON SENSOR (TIARA)	A02005	19662103.99P	9
6	UH-60 BLACKHAWK (MYP)	AA0005	16772147.99P	12
7	UH-60 BLACKHAWK (MYP) (ADV PROC)	AA0005	16773147.99P	18
8	GUARDRAIL MODS (TIARA)	AZ2000	11032103.99P	24
9	AH1F MODS	AA0150	12334147.99P	41
10	AH-64 MODS	AA6605	12706137.99P	45
11	CH-47 CARGO HELICOPTER MODS (MYP)	AA0252	13264137.99P	70
12	C-12 CARGO AIRPLANE MODS	AA0270	14194147.99P	99
13	OH-58 MODS	AA0400	14752147.99P	103
14	C-20 AIRCRAFT MODS	AA0560	15310147.99P	111
15	Longbow	AA6670	15682137.99P	121
16	Longbow (ADV PROC)	AA6670	15683137.99P	133
17	UH-1 MODS	AB0602	16426147.99P	136
18	UH-60 MODS	AA0480	16949147.99P	148
19	KIOWA WARRIOR	AZ2200	17542147.99P	164
20	EH-60 QUICKFIX MODS	AB3000	17728103.99P	184
21	AIRBORNE AVIONICS	AA0700	18472137.99P	192
22	ASE MODS	AA0720	18844137.99P	207
23	MODIFICATIONS < \$2.0M	AA0725	19030147.99P	217
24	INITIAL SPARES AIR)	AA0950	10420107.99P	221
25	AIRCRAFT SURVIVABILITY EQUIPMENT	AZ3504	13632137.99P	223
26	AIRBORNE COMMAND & CONTROL	AA0710	10030137.99P	230

Index for AIRCRAFT PROCUREMENT, ARMY

Blin	Nomenclature	SSN	Filename	Page Number
25	AVIONICS SUPPORT EQUIPMENT	AZ3000	10832103.99P	236
26	TRAINING DEVICES	AZ3700	11344137.99P	244
27	COMMON GROUND EQUIPMENT	AZ3100	15212147.99P	248
28	AIRCREW INTEGRATED SYSTEMS	AZ3110	16380137.99P	266
29	AIR TRAFFIC CONTROL	AA0050	16818147.99P	269
30	INDUSTRIAL FACILITIES	AZ3300	18132144.99P	272
31	AIRBORNE COMMUNICATIONS	AA0705	19161137.99P	274

DEPARTMENT OF THE ARMY
FY 99 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1998

Appropriation: **AIRCRAFT**

Activity: 1. **AIRCRAFT**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97		FY 98		FY 99	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	FIXED WING								
1	ARL (TIARA) (A11500)			2	29,736		40,122		13,133
2	UC-35 (MEDIUM RANGE) AIRCRAFT (A11300)			5	21,828	5	22,481		
3	GUARDRAIL COMMON SENSOR (TIARA) (A02005)	A			4,925		12,751		1,931
	SUB-ACTIVITY TOTAL				56,489		75,354		15,064
	ROTARY								
4	UH-60 BLACKHAWK (MYP) (AA0005) LESS: ADVANCE PROCUREMENT (PY)		11,082,727	34	287,838 -73,047	28	330,896 -65,563	22	243,820 -25,000
					214,791		265,333		218,820
5	UH-60 BLACKHAWK (MYP) (AA0005) ADVANCE PROCUREMENT (CY)				65,563		25,000		
	SUB-ACTIVITY TOTAL				280,354		290,333		218,820
	ACTIVITY TOTAL				336,843		365,687		233,884

Appropriation: **AIRCRAFT**

Activity: 2. **MODIFICATION OF AIRCRAFT**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97			FY 98		
				QTY	COST	(5)	QTY	COST	(10)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	MODIFICATIONS OF AIRCRAFT								
6	GUARDRAIL MODS (TIARA) (AZ2000)				30,254		14,608		36,079
7	AH1F MODS (AA0150)				1,085		440		512
8	AH-64 MODS (AA6605)				48,777		40,239		52,902
9	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)				48,496		62,413		101,176
10	C-12 CARGO AIRPLANE MODS (AA0270)				643		6,463		2,658
11	OH-58 MODS (AA0400)				1,146		732		90
12	C-20 AIRCRAFT MODS (AA0560)				881		834		799
13	Longbow (AA6670) LESS: ADVANCE PROCUREMENT (PY)				389,476 -16,818 ----- 372,658		493,215 -30,440 ----- 462,775		607,028 -36,932 ----- 570,096
14	Longbow (AA6670) ADVANCE PROCUREMENT (CY)				30,440		36,932		41,683
15	UH-1 MODS (AB0602)				6,120		2,618		3,789
16	UH-60 MODS (AA0480)				12,350		26,247		21,657
17	Kiowa Warrior (AZ2200)				197,068		57,125		40,446
18	EH-60 Quickfix Mods (AB3000)				13,794		43,632		3,015
19	Airborne Avionics (AA0700)				58,290		41,893		56,335

DEPARTMENT OF THE ARMY
FY 99 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1998

Appropriation: **AIRCRAFT**

Activity: 2. **MODIFICATION OF AIRCRAFT**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97			FY 98		
				QTY	COST		QTY	COST	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
20	ASE MODS (AA0720)				25,861		18,647		2,743
21	MODIFICATIONS < \$2.0M (AA0725)				1,788		1,696		1,660
	SUB-ACTIVITY TOTAL				849,651		817,294		935,640
	ACTIVITY TOTAL				849,651		817,294		935,640

Appropriation: **AIRCRAFT**

Activity: 3. **SPARES AND REPAIR PARTS**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97		FY 98		FY 99	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	SPARES AND REPAIR PARTS								
22	SPARE PARTS (AIR) (AA0950)				38,223		23,195		36,047
	SUB-ACTIVITY TOTAL				38,223		23,195		36,047
	ACTIVITY TOTAL				38,223		23,195		36,047

DEPARTMENT OF THE ARMY
FY 99 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1998

Appropriation: **AIRCRAFT**

Activity: 4. **SUPPORT EQUIPMENT AND FACILITIES

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 99 UNIT COST	(Thousands of Dollars)					
				FY 97		FY 98		FY 99	
				QTY (5)	COST (6)	QTY (7)	COST (8)	QTY (9)	COST (10)
(1)	(2)	(3)	(4)						
	GROUND SUPPORT AVIONICS								
23	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)				284		8,117		5,144
	SUB-ACTIVITY TOTAL				284		8,117		5,144
	OTHER SUPPORT								
24	AIRBORNE COMMAND & CONTROL (AA0710)								24,421
25	AVIONICS SUPPORT EQUIPMENT (AZ3000)				9,877		2,640		2,555
26	TRAINING DEVICES (AZ3700)				7,390		13,000		
27	COMMON GROUND EQUIPMENT (AZ3100)				20,609		27,012		30,107
28	AIRCREW INTEGRATED SYSTEMS (AZ3110)				11,286		12,190		9,050
29	AIR TRAFFIC CONTROL (AA0050)				13,502		5,671		5,691
30	INDUSTRIAL FACILITIES (AZ3300)				2,018		2,002		1,493
31	AIRBORNE COMMUNICATIONS (AA0705)				39,287		46,380		41,911
	SUB-ACTIVITY TOTAL				103,969		108,895		115,228
	ACTIVITY TOTAL				104,253		117,012		120,372
	APPROPRIATION TOTAL				1,328,970		1,323,188		1,325,943

Exhibit P-1M, Procurement Programs - Modification Summary

System/Modification	(TOA, Dollars in Millions)							To Complete	Total Program
	1996 & Prior	1997	1998	1999	2000	2001	2002	2003	
GUARDRAIL MODS (TIARA) (AZ2000)									
CHAALS for System 3	0.8								0.8
Interoperability With Air Force	6.7	1.7							8.4
Remote Relay for System 1	6.5	0.7							7.2
AQL Phase III Hardware Upgrade	4.7								4.7
System 2 Block Upgrade	170.6	15.3	13.2	12.9					212.0
ITIBS and TRIXS fir GR/CS	13.1	12.6	1.4						27.1
Conversion of RC-12N's to RC-12P's				23.2					23.2
Total	202.4	30.3	14.6	36.1					283.4
AH1F MODS (AA0150)									
Rewire	12.2	1.1	0.4	0.5	0.4	0.4	0.5	0.5	48.1
M65 Reliability/Maintainability	0.1								0.1
Total	12.3	1.1	0.4	0.5	0.4	0.4	0.5	0.5	48.2
AH-64 MODS (AA6605)									
Backup Control System (BUCS)		7.8	3.8	10.1	7.3	4.7	4.8	4.9	48.5
Fuel Control Warning Panel	6.0	1.8	2.1	1.8	1.3				13.0
Embedded GPS / Inertial Navigation System (EGI)	70.8	7.5	5.5	0.6					84.4
H-11 Bolt Replacement	4.9		0.8	1.0	1.0	1.0	1.3	1.3	12.7
Captive Boresight Harmonization Kit (CBHK) Upgrade	17.2								17.2
Airframe Modifications	2.3	3.7	7.8	12.0	13.8	6.5	6.9	7.2	60.2
Alternate Laser Code	11.8	9.0	11.5	3.4					35.7
TADS/PNVIS I/II upgrades	41.7	10.2	6.4	7.8					66.1
TADS/PNVIS Upgrades	1.4	2.1	1.9	6.9	6.3	7.1	7.2	7.4	48.4
AITP 01							3.1	7.1	18.7
Miscellaneous Mods Less Than 2M			0.4		0.6	0.6	1.4	1.9	261.8
Image Intensifier (I2)	249.2	6.7				4.0	15.9	8.7	40.0
Apache Integrated Training Program Trainer Upgrade				3.4	5.3	5.2	10.3	15.2	55.2

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

<u>System/Modification</u>	<u>Prior</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>To Complete</u>	<u>Total Program</u>
Cat B Trainer Restoration				5.9	1.9	5.6	6.8	7.2	4.9	32.3
ORT Conversion	14.7									14.7
Second Gen FLIR							50.3	45.2		95.5
Total	420.0	48.8	40.2	52.9	37.5	34.7	108.0	106.1	56.2	904.4
CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)										
Installation of Modification Kits	8.5	1.0	1.3	1.2	0.6					12.6
Work Platform - Aft Pylon	1.2		0.1	0.2						1.5
Improved Cross Shaft Adapters, Couplings, & Bolts				1.1	0.2	0.2				1.5
Improved Rotor Head Shafts & Seals				1.1	0.8	1.6	0.8			4.3
Improved Latch for Aft Pylon Doors	1.0		0.2	0.2						1.4
Install Handholds in Center Cargo Hook Hatch	0.6			0.5						1.1
Install Aft Pylon Fairing Vents			2.5	1.1	0.5	0.5				2.1
Improved Battery				1.7	0.1	0.1				2.7
Replace Upper Seal for Swashplate			5.1	1.7	0.5	1.8	1.2			5.2
Halon Replacement			49.6	1.7	0.8					7.6
Engine Upgrade to T55-GA-714A Configuration		47.5		87.3	71.0	176.9	195.9	199.3	420.0	1247.4
Engine Barrier Filter				5.1	4.6	5.1	6.1	7.9	6.8	30.6
Extended Range Fuel System			3.6	5.1	5.8	6.6	7.4	7.6	33.2	69.3
Total	11.3	48.5	62.4	101.2	84.9	192.9	211.4	214.8	460.0	1387.3
C-12 CARGO AIRPLANE MODS (AA0270)										
Color Weather Radar	0.7									0.7
Avionics System Cockpit Upgrade - Group II		0.6	6.5	2.7	6.2	5.5	9.5	10.1	67.5	108.5
Total	0.7	0.6	6.5	2.7	6.2	5.5	9.5	10.1	67.5	109.2
OH-58 MODS (AA0400)										
SINGGARS-V	16.3	0.1	0.6		0.5	0.5	0.5	0.5		19.0
Global Positioning System (GPS)	0.8	0.7	0.1	0.1						1.7
Transmission External Oil Filter	0.7	0.3								1.0

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)										
System/Modification	1996 &									
	Prior	1997	1998	1999	2000	2001	2002	2003	To Complete	Total Program
Total	17.8	1.1	0.7	0.1	0.5	0.5	0.5	0.5		21.7
C-20 AIRCRAFT MODS (AA0560)										
Global Positioning System (GPS)	1.6									1.6
Flight Data Recorder	0.2									0.2
Cockpit Voice Recorder	0.1									0.1
Digital Flight Phone	0.3		0.4							0.7
Traffic Collision Avoidance System		0.9								0.9
Enhanced Ground Proximity Warning System			0.5							0.5
Satellite Communications/Future Air Navigation System				0.8	0.8	0.8	0.8	0.8	0.6	4.6
Total	2.2	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.6	8.6
Longbow (AA6670)										
Longbow Apache Mods	332.9	283.1	368.2	475.0	574.9	553.6	568.0	625.0	2964.8	6745.5
Apache Longbow FCR	85.5	89.6	94.6	95.1	111.9	109.0	105.0			690.7
Total	418.4	372.7	462.8	570.1	686.8	662.6	673.0	625.0	2964.8	7436.2
UH-1 MODS (AB0602)										
UH-1 Radar Altimeter (AN/APN-209)	14.9	0.7	0.2	0.2						16.0
Improved Airborne Direction Finder (AN/ARN-149)	6.0	1.8	1.7	1.7	2.3	3.1	1.0			17.6
Improved VHF OMNI-Range (AN/ARN-123)	9.2	1.8	0.6	1.2	1.0	0.8	1.2	0.3		16.1
Single Channel Ground and Air Radio System (SINCGARS)	4.0	0.4	0.1	0.7	1.2	0.5	1.1	0.3	0.4	8.7
AN/APX-100 Transponder										
Upgrade UH-1 Synthetic Flight Simulator System		1.4						2.7	22.8	25.5
Total	34.1	6.1	2.6	3.8	4.5	4.4	3.3	3.3	23.2	85.3
UH-60 MODS (AA0492)										
Refurbishment/Standardization	95.1	10.9	4.5	1.5						112.0
Single Channel Ground & Airborne Radio Sys (SINCGARS)	46.2		1.3							47.5
Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS)	9.3		3.6	9.9	1.7					24.5

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

System/Modification	1996 & Prior	1997	1998	1999	2000	2001	2002	2003	To Complete	Total Program
5/8" Fuel Line	2.8	0.9								3.7
Halon Changeout	0.1		4.6	4.5	3.6					12.8
Battery/Power Light Relocate	0.3			0.8	5.7	7.9	2.8	1.4		18.9
NVG Lighting Lower Console	1.3	0.6		5.0	4.9	2.4	0.6			14.8
Engine Driveshaft Redesign						0.3	10.5	12.4		23.2
Service Life Extension Program						4.8	39.5	100.8		145.1
UH-60Q Medivac			9.3				37.5	58.8		105.6
Fire Hawk			2.9							2.9
Total	155.1	12.4	26.2	21.7	15.9	15.4	90.9	173.4		511.0
KIOWA WARRIOR (AZ2200)										
Kiowa Warrior - Remanufacture	808.7	109.1	9.8	0.1						927.7
Kiowa Warrior - Retrofit	417.0	25.9	9.9							452.8
Halon Fire Extinguisher	1.3		0.5	0.5	0.4					2.7
Crew Station Mission Equipment Trainer (CSMET)			3.2	7.4	4.2	2.6				17.4
R3 Engines - SSEP	52.9	51.0	18.7	21.9	14.5	1.4	23.7	10.3	11.8	206.2
Improved Master Controller Processor Unit - SSEP	50.9	5.2	10.3	7.2	5.2	4.6	26.6	27.0	16.1	153.1
Crew Seats - Sys Safety Enhancement	1.1	5.9	4.7	2.1	3.0	2.7	14.9	1.6		36.0
Supplemental Restraint System - Sys Safety Enhancement	1.0			1.2	2.4	3.4	8.8	2.4		19.2
Total	1332.9	197.1	57.1	40.4	29.7	14.7	74.0	41.3	27.9	1815.1
EH-60 QUICKFIX MODS (AB3000)										
T701C Helicopter Engines	35.1					0.9				36.0
External Storage Support Systems	9.9									9.9
Advanced EH-60 Quickfix Mods	38.1	13.8	43.6	3.0	54.0	65.1	74.9	82.4	615.7	990.6
Total	83.1	13.8	43.6	3.0	54.0	66.0	74.9	82.4	615.7	1036.5
AIRBORNE AVIONICS (AA0700)										
Embedded GPS Inertial Navigation System (EGI)	26.2	6.8	0.9	0.6						34.5
Doppler GPS Navigation System (DGNS) (AN/ASN-128B)	18.0	23.4	16.9	18.4	15.7	2.8				95.2

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

<u>System/Modification</u>	<u>1996 & Prior</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>To Complete</u>	<u>Total Program</u>
Global Positioning System (GPS) (AN/ASN-149)	2.1									2.1
Improved Data Modem (IDM)	11.7	13.6	15.4	27.8	16.6	16.1	22.7	17.2	85.1	226.2
Aviation Mission Planning System	6.6	14.5	8.7	9.5	9.5	9.1	7.1			65.0
Embedded GPS Inertial Navigation System (EGI) PPI					1.7	8.0	14.2	7.5	6.9	38.3
Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI					0.9	8.1	14.7	7.5	3.7	34.9
Total	64.6	58.3	41.9	56.3	44.4	44.1	58.7	32.2	95.7	496.2
ASE MODS (AA0720)										
Laser Detecting Set - AN/AVR-2A(V)/AH-64	2.8	11.5	9.0							23.3
Infrared Countermeasure Set - AN/ALQ-144A/OH-58D	0.2	0.1	0.1							0.4
AN/ALQ-211 Suite of Integrated Radio Frequency CMS	11.1	5.2	2.2	2.7	2.8	8.7	2.9			35.6
Advanced Threat Infrared Countermeasures (ATIRCM)		9.1	7.3		9.9	13.1	14.4	14.7		68.5
Total	14.1	25.9	18.6	2.7	12.7	21.8	17.3	14.7		127.8
MODIFICATIONS < \$2.0M (AA0725)										
Engine Trend Monitor System	2.4									2.4
Avionics System Cockpit Upgrade - Group I		1.8	1.7	1.7	1.9	1.9	1.9	1.9	6.0	18.8
Total	2.4	1.8	1.7	1.7	1.9	1.9	1.9	1.9	6.0	21.2
Grand Total	2771.4	819.4	780.3	893.9	980.2	1065.6	1324.7	1306.9	4349.7	14292.1

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 1 / Aircraft												ARL (TIARA) (A11500)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty	2			2								4	
Gross Cost	61.8	0.0	20.3	29.7	40.1	13.1	12.7	11.0	10.9	0.0	0.0	199.7	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	61.8	0.0	20.3	29.7	40.1	13.1	12.7	11.0	10.9	0.0	0.0	199.7	
Initial Spares							2.5	0.5	0.5			3.5	
Total Proc Cost	61.8	0.0	20.3	29.7	40.1	13.1	15.2	11.4	11.4	0.0	0.0	203.2	
Flyaway U/C				12.8									
Wpn Sys Proc U/C				14.9									

DESCRIPTION: The Airborne Reconnaissance Low (ARL) has evolved from two complimentary tactical airborne systems ARL-I (Imagery Intelligence IMINT), an electro-optic reconnaissance and surveillance system, and ARL-C (communications intelligence COMINT), system which provides real-time highly accurate radio intercept and location. The ARL program integrates the capabilities of ARL-I and ARL-C into a single system which satisfies the requirements identified by validated SOUTHCOM Statements of Need (SON). The merger of these programs minimizes the acquisition and operational costs, increases availability, and optimizes flexibility resulting from the integration of the electro-optic and Radio Frequency (RF) sensors into a unified system. The primary sensors will be a Signal Intelligence (SIGINT) with precision Direction Finding (DF) capability and IMINT electro-optics for target identification and classification and multimode capability including wide area search Moving Target Indicator (MTI) and Synthetic Aperture Radar (SAR). ARL provides near real-time tactical airborne SIGINT and near real time IMINT collection support to Joint Force (JTF) Commanders. ARL is a multi-echelon level, multi-INT (combined SIGINT and IMINT) system, designed for forward deployment/force projection in Operations Other Than War (OOTW) to mid intensity conflict environments. ARL also conducts daily JCS Sensitive Reconnaissance Operations, is rapidly self-deployable to support contingency operations, and is the airborne Reconnaissance Surveillance Target Acquisition (RSTA) platform of choice for various non-DOD government agencies such as DEA and FEMA. ARL is currently providing an indications and warnings capability to U.S. Armed Forces in Korea. A November 1995 Department of the Army (DA) Directed Requirement validated the USARPAC/PACOM SON requirement for six ARL-Ms with Electronic Intelligence (ELINT) and MTI/SAR.

JUSTIFICATION: FY99 funds will cover fielding costs associated with the ARL-Ms, installation of Commanders Tactical Terminal (CTT-H3) and provide upgrades to the IMINT payloads of fielded ARL-M systems.

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft			P-1 Line Item Nomenclature: ARL (TIARA) (A11500)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AIRCRAFT Flyaway Costs														
Airframes / CFE			16374											
Aircraft Mods (Incl M/E)					5200		1	5200						
ARL-M Systems 4&5 Airframes w/Mods					20342		2	10171						
ARL-M Systems 4&5 B-Kits for WKSTS									26480	2	13240			
Modify Airframe to ARL-M Config w/Sensors									4766	1	4766			
Modify ARL-M Systems to incorporate CTT-H3												6320		
Upgrade to IMINT Suite												4185	3	1395
Subtotal Flyaway Costs			16374		25542				31246			10505		
Non-Recurring Costs														
Tooling Equipment														
Other System Test														
Total Flyaway			16374		25542				31246			10505		
Support Cost														
Engineering Support			420		300				831			100		
Program Management (Admin Support)			1008		1022				1756			400		
GFE									341			2128		
Fielding			1761		2372									
Peculiar Training Equipment														
Engineering Change Orders									2500					
Other (Testing/Spares)			781		500				3448					
Subtotal Support Cost			3970		4194				8876			2628		
Gross P-1 End Cost														
Less: Prior Year Adv Proc														
Net P-1 Full Funding Cost			20344		29736				40122			13133		
Plus: P-1 CY Adv Proc														
Other Non P-1 Costs			20344		29736				40122			13133		
Initial Spares														
Mods														
TOTAL			20344		29736				40122			13133		

Exhibit P-5a, Budget Procurement History and Planning										Date:
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft										February 1998
Weapon System Type:										
P-1 Line Item Nomenclature:										
ARL(TIARA)(A11500)										
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revis Avail	RFP Issue Date
FY96 ARL-M Systems 1 & 2 MTI/SAR Mod	California Microwave, Belcamp, MD	C/FP-D	CECOM	Oct-95	Sep-96	2	8187	Yes	No	
FY97 ARL-M System 3 MTI/SAR Mod	California Microwave, Belcamp, MD	C/FP-O	CECOM	Nov-96	Aug-97	1	5200	Yes	No	
ARL-M Systems 4 & 5-Airframes with Mods	California Microwave, Belcamp, MD	C/FP-O	CECOM	Dec-96	Dec-98	2	10171	Yes	No	
FY98 ARL-M Systems 4&5 B-Kits for workstations per aircraft/imagery sensors and high performance multimode radar	California Microwave, Belcamp, MD	C/FP-O	CECOM	Dec-97	Dec-98	2	13240	Yes	No	
Modify Airframe to ARL-M Config w/Sensors	California Microwave, Belcamp, MD	C/FP-O	CECOM	Feb-98	Feb-00	1	4766	Yes	No	
FY99 Upgrade to IMINT Suite	TBS	C/FP	CECOM	Oct-98	Jan-01	3	1395	Yes	No	
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No:		Date: February 1998									
AIRCRAFT PROCUREMENT / 1 / Aircraft		P-1 Item Nomenclature: UC-35 (MEDIUM RANGE) AIRCRAFT (A11300)									
Program Elements for Code B Items:		Other Related Program Elements:									
		Code: A									
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty		5	5	5				3	3		23
Gross Cost	0.0	21.0	21.8	22.5	0.0	0.0	0.0	14.8	14.8	0.0	103.4
Less PY Adv Proc											
Plus CY Adv Proc											
Net Proc (P-1)	0.0	21.0	21.8	22.5	0.0	0.0	0.0	14.8	14.8	0.0	103.4
Initial Spares											
Total Proc Cost	0.0	21.0	21.8	22.5	0.0	0.0	0.0	14.8	14.8	0.0	103.4
Flyaway U/C											
Wpn Sys Proc U/C											

DESCRIPTION:

The UC-35A (Medium Range) aircraft is a fully integrated, two-pilot crew, 6-8 passenger capability, multi-engine system with worldwide self-deployability. It has advanced technology, while being a non-developmental, fixed wing aircraft system. The UC-35A aircraft is being fielded using the concept of Life Cycle Contractor Support.

JUSTIFICATION:

The FY 99 budget provides no funding for the UC-35A procurement.

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft			P-1 Line Item Nomenclature: UC-35 (MEDIUM RANGE) AIRCRAFT (A11300)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96		FY 97		FY 98		FY 99					
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AIRCRAFT Flyaway Costs														
		Airframes / CFE	19,765	5	3,953	20,380	5	4,076	20,754	5	4,151			
		Avionics	426			490			500					
		Training	287			329			381					
		Contractor Support	357			428			538					
		Engine Repair, Parts, & Material	80			113			242					
		Other Costs	44			88			66					
		Subtotal Flyaway Costs	20,959			21,828			22,481					
		Non-Recurring Costs												
		Tooling Equipment												
		Other System Test												
		Total Flyaway	20,959			21,828			22,481					
		Support Cost												
		Engine (leftover A model)												
		Airframe PGSE												
		Engine PGSE												
		Peculiar Training Equipment												
		Publications Tech / Data												
		Engineering Change Orders												
		Other (specify) Net/ICS/Mtxsupt												
		Subtotal Support Cost												
		Gross P-1 End Cost	20,959			21,828			22,481					
		Less: Prior Year Adv Proc												
		Net P-1 Full Funding Cost	20,959			21,828			22,481					
		Plus: P-1 CY Adv Proc												
		Other Non P-1 Costs												
		Initial Spares												
		Mods												
		TOTAL	20,959			21,828			22,481					

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1998
Appropriation / Budget Activity/Serial No:		Weapon System Type:		P-1 Line Item Nomenclature:						
AIRCRAFT PROCUREMENT / 1 / Aircraft				UC-35 (MEDIUM RANGE) AIRCRAFT (A11300)						
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
Airframes / CFE FY 96 FY 97 FY 98	Cessna Aircraft Company Wichita, Kansas	C/FP-O Option Option	ATCOM ATCOM AMCOM	Jun-96 Jun-97 Jun-98	Apr 97 Mar 98 Apr 99	5 5 5	3953 4076 4151	Yes Yes Yes	No No No	
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet												Date: February 1998	
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 1 / Aircraft												GUARDRAIL COMMON SENSOR (TIARA) (AO2005)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	704.8	0.0	5.8	4.9	12.8	1.9	14.5	3.4	16.3	5.4	0.0	769.8	
Less FY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	704.8	0.0	5.8	4.9	12.8	1.9	14.5	3.4	16.3	5.4	0.0	769.8	
Initial Spares	112.9		4.7	11.3	0.8							129.7	
Total Proc Cost	817.7	0.0	10.5	16.2	13.6	1.9	14.5	3.4	16.3	5.4	0.0	899.5	
Flyaway U/C													
Wpnt Sys Proc U/C													

DESCRIPTION: GUARDRAIL is an Airborne Signal Intercept and emitter location system designed to provide commanders with critical battlefield information via a Commander's Tactical Terminal (CTT) and other DoD tactical and fixed communication systems. The Army's GUARDRAIL/Common Sensor Systems (GRCS) will have a highly flexible architecture to allow deployment to support contingency operations.

The GUARDRAIL/Common Sensor System (GRCS) integrates the improved GUARDRAIL V for communications intelligence (COMINT), the Communications High Accuracy Airborne Location System (CHAALS/CHALS-X) for COMINT and precision emitter location, and the Advanced QUICKLOOK (AQL) for electronics intelligence (ELINT) and precision emitter location into a single signal intelligence (SIGINT) system. The airborne elements are integrated into the RC-12K/N/P aircraft. Ground processing is conducted in the Integrated Processing Facility (IPF). Key performance requirements include a real-time COMINT and ELINT collection and high accuracy target location capability in communications and radar frequencies. The Interoperable Data Link (IDL)/Multi-Role Data Link (MRDL) connects the airborne elements and the ground processing element. Additional funding was provided in FY98 to integrate production CHAALS hardware into GRCS System 3 in Korea and to fund additional embedded training efforts.

JUSTIFICATION:

The FY 99 GUARDRAIL/Common Sensor (AO2005) funds provide for fielding support to the GUARDRAIL/Common Sensor System 2 program.

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft			P-1 Line Item Nomenclature: GUARDRAIL COMMON SENSOR (TIARA) (A02005)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AIRCRAFT Flyaway Costs														
		Airframes / CFE												
		Avionics												
		A. GFE												
		Other GFE												
		Armament (FCR)												
		ECO (All Flyaway Components)												
		Other Costs (Halon)												
		Subtotal Flyaway Costs												
		Non-Recurring Costs												
		Tooling Equipment												
		Other												
		Total Flyaway												
		Support Cost												
		Government In-House/Program MGMT ADM	1127			209			103					
		Contractor Engineering	2330											
		Test & Integration Facility	595			960			448					
		Fielding/ICS	1775						2786			1931		
		Mini-Information Processing Facility (IPF)												
		Communications & Relay Equipment												
		GFE/Maintenance Equipment												
		CHAALS							2955					
		Publications Tech / Data												
		Engineering Change Orders												
		Embedded Training												
		Subtotal Support Cost	5827			3756			6459			1931		
			4925			4925			12751					
		Gross P-1 End Cost	5827			4925			12751			1931		
		Less: Prior Year Adv Proc												
		Net P-1 Full Funding Cost	5827			4925			12751			1931		
		Plus: P-1 CY Adv Proc												
		Other Non P-1 Costs												
		Initial Spares	4709			11289			786					
		Mods												
		TOTAL	10536			16214			13537			1931		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1998
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft		Weapon System Type:			P-1 Line Item Nomenclature: GUARDRAIL COMMON SENSOR (TIARA) (A02005)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
FY97 Embedded Training	TRW, Sunnyvale, CA.	SS/FP	CECOM	Sep-97	Sep-98			No		
FY98 Embedded Training	TRW, Sunnyvale, CA.	SS/FP	CECOM	Feb-98	Mar-99			No		
Communications High Accuracy Airborne Location System (CHAALS)	Lockheed Martin, Owego, NY	SS/FP	CECOM	Feb-98	Feb-99			No		
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
AIRCRAFT PROCUREMENT / 1 / Aircraft												UH-60 BLACKHAWK (MYP) (A00005)
Program Elements for Code B Items:												P-1 Item Nomenclature:
Code:												Other Related Program Elements:
A												
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty	1298	60	34	28	22	10	10	10	10		1542	
Gross Cost	6514.4	414.8	287.8	330.9	243.8	104.4	96.3	96.0	95.6	0.0	8576.8	
Less PY Adv Proc	1924.7	180.6	73.0	65.6	25.0						2341.3	
Plus CY Adv Proc	2138.0	72.4	65.6	25.0							2374.0	
Net Proc (P-1)	6727.7	306.6	280.4	290.3	218.8	104.4	96.3	96.0	95.6	0.0	8609.5	
Initial Spares	392.5	9.2	6.4	2.4	1.9						420.9	
Total Proc Cost	7120.2	315.8	286.8	292.7	220.7	104.4	96.3	96.0	95.6	0.0	9030.4	
Flyaway U/C	4.8	6.3	8.0	10.9	10.2	8.6	7.8	7.7	7.6		5.3	
Wpn Sys Proc U/C	5.3	7.1	8.8	11.8	11.2	10.4	9.6	9.6	9.6		5.8	
DESCRIPTION												
<p>UH-60 BLACK HAWK is a twin engine, single rotor helicopter that is designed to support the Army's airmobility doctrine for employment of land forces into the 21st century. The BLACK HAWK is used in the performance of the Air Assault, General Support and Aeromedical Evacuation missions. It is designed to carry a crew of four and 11 combat-equipped troops or an external load up to 9,000 pounds. It performs the missions of transporting troops and equipment into combat, resupplying the troops while in combat and performing the associated functions of aeromedical evacuation, repositioning of reserves, and command and control.</p> <p>The UH-60 BLACK HAWK is in its twenty-first year of production. Fourteen hundred and eighteen aircraft have been procured by the Army over the period from FY77 thru FY96, which includes 18 aircraft provided to the U.S. Customs Service, 16 aircraft provided to the Air Force, and ten aircraft provided to Israel. In addition, 45 aircraft have been procured with National Guard funding. An additional 124 Army aircraft are budgeted for procurement in FY97 through FY03. This results in 1,543 aircraft for the Army versus a requirement of 2,043 aircraft. The initial 980 aircraft were delivered with the T700-GE-700 Engine and were designated as the UH 60A. With the incorporation of the General Electric T700-GE-701C Engine in the UH-60 in October 1989, the aircraft series designation was changed to the UH-60L. The last UH-60L Black Hawk will be delivered in May 2004. Qualification and integration of the UH-60Q MEDEVAC aircraft continues with funding provided by Congress in FY97 to convert four new production UH-60Ls to the UH-60Q configuration.</p>												
JUSTIFICATION:												
<p>FY99 funds are required for the procurement of aircraft and associated mission kits, continuation of fielding and to provide for PMO operations, matrix support, and contractor engineering support for the procurement of 22 aircraft.</p>												

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft				P-1 Line Item Nomenclature: UH-60 BLACKHAWK (MYP) (AA0005)				Weapon System Type:		Date: February 1998	
Aircraft Cost Elements			FY 96		FY 97		FY 98		FY 99					
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AIRCRAFT Flyaway Costs														
		Airframes / CFE	290,748	60	4,846	185,435	34	5,454	182,226	28	6,508	153,031	22	6,956
		Engines/Accessories												
		(Eng Model T700-GE-701C) 2 per Acft												
		Avionics												
		A. CFE	4,872			11,403			7,000			7,910		
		B. GFE	5,642			6,644			7,711			4,431		
		Other GFE												
		Armament												
		ECO (All Flyaway Components)	319			2			7,399			4,555		
		Other Costs (Mission Kits)	24,177			30,687			67,520			32,144		
		Subtotal Flyaway Costs	362,305			271,157			304,596			223,493		
		Non-Recurring Costs												
		Tooling Equipment												
		Other Nonrecurring	5,502											
		Total Flyaway	367,807			271,157			304,596			223,493		
Support Cost														
		Airframe PGSE	827			1,581						372		
		Engine PGSE												
		Peculiar Training Equipment	1,334						3,600					
		Publications Tech / Data	5,433			3,371			4,487			3,472		
		Engineering Change Orders												
		PM Administration	12,967			13,305			13,342			13,184		
		Fielding	4,357			3,424			4,871			3,299		
		Subtotal Support Cost	24,918			21,681			26,300			20,327		
		Gross P-1 End Cost	392,725			292,838			330,896			243,820		
		Less: Prior Year Adv Proc	72,417			73,047			65,563			25,000		
		Net P-1 Full Funding Cost	320,308			219,791			265,333			218,820		
		Plus: P-1 CY Adv Proc	73,047			65,563			25,000					
		Other Non P-1 Costs												
		Initial Spares	8,462			6,449			2,444			1,944		
		Moder	23,683			12,350			16,962			21,657		
		TOTAL	425,500			304,153			309,739			242,421		

Exhibit P-5a, Budget Procurement History and Planning																					
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft					Weapon System Type:		P-1 Line Item Nomenclature: UH-60 BLACKHAWK (MYP) (AA0005)			Date: February 1998											
WBS Cost Elements: Fiscal Years		Contractor and Location		Contract Method and Type		Location of PCO		Award Date		Date of First Delivery		QTY Each		Unit Cost \$000		Specs Avail Now?		Date Revisn Avail		RFP Issue Date	
Airframes																					
FY 96		Sikorsky, Stratford, CT		SSM/FP		ATCOM		Nov-95		Jul-96		60		4846		Yes		No			
FY97		Sikorsky, Stratford, CT		SSM/FP		ATCOM		Dec-96		Sep-97		6		5014		Yes		No			
FY 97		Sikorsky, Stratford, CT		SSM/FP		ATCOM		Jul-97		Jul-97		28		5548		Yes		No			
FY98		Sikorsky, Stratford, CT		SSM/FP		AMCOM		Dec-97		Jul-98		18		6757		Yes		No			
FY98		Sikorsky, Stratford, CT		SSM/FP		AMCOM		Feb-98		Aug-98		10		6060		Yes		No			
FY99		Sikorsky, Stratford, CT		SSM/FP		AMCOM		Dec-98		Jul-99		22		6956		Yes		No			
Engine																					
FY95 (AP for FY96)		General Elec, Lynn, MA		SS/FP		ATCOM		Feb-95		May-96		56		521		Yes		No			
FY95 (AP for FY96)		General Elec, Lynn, MA		SS/FP		ATCOM		Jul-96		Oct-97		14		527		Yes		No			
FY 96 (AP for FY97)		General Elec, Lynn, MA		SS/FP		ATCOM		Dec-95		Oct-96		58		528		Yes		No			
FY97		General Elec, Lynn, MA		SS/FP		ATCOM		Dec-96		Nov-97		12		527		Yes		No			
FY97 (AP for FY98)		General Elec, Lynn, MA		SS/FP		ATCOM		Sep-97		Apr-98		36		584		Yes		No			
FY98		General Elec, Lynn, MA		SS/FP		AMCOM		Feb-98		Jan-99		20		585		Yes		No			
FY98 (AP for FY99)		General Elec, Lynn, MA		SS/FP		AMCOM		Dec-97		Apr-99		16		603		Yes		No			
FY99		General Elec, Lynn, MA		SS/FP		AMCOM		Dec-98		Oct-99		20		589		Yes		No			
REMARKS:		Unit costs shown reflect the values shown on the P5. These values include both hardware, as well as contractor system project management. The current FY97-01 airframe contract provided Firm Fixed Prices for 28 Army H-60s in FY97, 18 in FY98, and 12 in FY99. Six aircraft funded with the FY97 appropriation were procured on the previous multiyear contract. Ten of the aircraft funded with the FY98 appropriation are being procured on an option clause. The FY99 portion of the contract will require renegotiation to accomodate the increase in quantity from 18 to 28. Current engine requirements are being procured on a contract with an indefinite quantity.																			

Exhibit P-40, Budget Item Justification Sheet													Date:	February 1998
Appropriation / Budget Activity/Serial No.													P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 1 / Aircraft													UH-60 BLACKHAWK (MYP) (ADV PROC) (AA00005)	
Program Elements for Code B Items:													Other Related Program Elements:	
Code:													A	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog		
Proc Qty	1298	60	60	34	28	22	10	10	10	10		1542		
Gross Cost	2138.0	72.4	73.0	65.6	25.0	0.0	0.0	0.0	0.0	0.0	0.0	2374.0		
Less PY Adv Proc														
Plus CY Adv Proc	2138.0	72.4	73.0	65.6	25.0	0.0	0.0	0.0	0.0	0.0		2374.0		
Net Proc (P-1)														
Initial Spares														
Total Proc Cost														
Flyaway U/C														
Wpn Sys Proc U/C														

DESCRIPTION:
The Advance Procurement funding for the UH-60 BLACK HAWK contains funding for the airframe and engine contracts and funding for Government Furnished Equipment (GFE) to support the UH-60 production and mission kits. GFE includes such items as avionics equipment, crew seats, Hover Infrared Suppressor Systems and Auxiliary Power Units.

Advance Procurement Requirements Analysis-Funding (P-10A)														
Appropriation / Budget Activity/Serial No:				First System Award Date:				First System Completion Date:				Date:		
AIRCRAFT PROCUREMENT / 1 / Aircraft				P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)										
(\$ in Millions)														
	PLT (mos)	When Rqd (mos)	Pr Yrs	1995	1996	1997	1998	1999	2000	2001	2002	2003	To Comp	Total
End Item Quantity:														
Airframe	24	7	1349.2	60.0	60.0	34.0	28.0	22.0	10.0	10.0	10.0	10.0		1463.5
Engine	16	4	554.6	30.0	32.0	40.0	12.3							652.5
Avionics(Various)	Various	4	125.2	1.2	2.5	21.0	9.6							128.9
Auxiliary Power Unit(APU)	13	4	38.5	0.0	2.3	1.5	1.4							43.7
Armored Crew Seat	12	4	19.1	0.5	1.2	1.6	0.9							23.3
Hover Infrared Suppressor (HIRSS)	10	4	23.4	3.2	1.4	0.8								28.8
Elastomeric Rod End Bearings	10	4	0.0	0.9	0.4	0.3								1.6
Extended Range Fuel System	13	N/A	15.6	1.0	1.0									16.6
Blackout Device Kit	7	N/A	0.0	0.0	0.2									.2
Air Transportability Kit	14	N/A	0.0	0.0	1.0									1.0
Other	N/A	N/A	12.4	0.3	0.3	0.4	0.8							13.9
Total Advance Procurement			2138.0	72.4	73.0	65.6	25.0							2374.0

Advance Procurement Requirements Analysis-Budget Justification (P-10B)									
Appropriation / Budget Activity/Serial No:					Date: February 1998				
AIRCRAFT PROCUREMENT / 1 / Aircraft					P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROG) (AA0005)				
(\$ in Millions)									
1998					1999				
PLT (mos)	Quantity Per Assembly	Unit Cost	Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request	
24	N/A	1.0(TL)	12	Dec 97	12.3				
16	2	0.6	16	Dec 97	9.6				
13	1	0.1	16	Feb 98	1.4				
12	2	0.1	32	Feb 98	0.9				
N/A	N/A	N/A	N/A	Dec 97	0.8				
Total Advance Procurement					25.0				
Description: Airframe requirement is the termination liability requirement from the FY97-01 multiyear, multiservice contract signed in July, 1997. Section H 25 of this contract (DAAJ09-97-C-0005) required EOQ funding for FY98 and FY99 at contract award. Additional funding is required against the FY99 requirement in December 1997 to cover the incremental termination liability incurred during FY98. Engine price reflects the appropriate option price negotiated in the contract signed in September, 1997. Option for engines must be exercised in FY98 in order to ensure delivery to the prime contractor three months prior to end item delivery (April 99). No contractual instrument is currently available for the APU or Crew Seat. Other costs reflect funding of Engine Data and funding no longer available in the program.									

Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)											Date:	February 1998	
Appropriation / Budget Activity/Serial No.											P-1 Line Item Nomenclature / Weapon System:		
AIRCRAFT PROCUREMENT / 1 / Aircraft											UH-60 BLACKHAWK (MYP) (ADV PROC) (AA00005)		
(\$ in Millions)													
		Pt Yrs	1995	1996	1997	1998	1999	2000	2001	2002	2003	To Comp	Total
Proposal w/o AP													
Then Year Cost				4	29	77	107	89	48	20	10	3	389
Constant Year Cost				5	30	77	106	85	46	19	9	3	379
Present Value				5	28	71	93	73	38	15	7	2	331
AP Proposal													
Then Year Cost				4	31	78	103	80	44	19	8	3	370
Constant Year Cost				5	32	78	101	77	41	17	7	3	361
Present Value				5	30	72	90	66	34	14	6	2	317
AP Savings (Difference)													
Then Year Cost					2	1	-4	-9	-5	-2	-2		-18
Constant Year Cost					2	1	-4	-9	-4	-2	-2		-18
Present Value					2	1	-3	-8	-4	-1	-1		-14
Remarks: Values above reflect the total Army airframe contract price(outlays) for the FY97-99 requirements utilizing a multiyear contract, versus the price of procuring these aircraft on three single year contracts. Constant dollars shown are FY98. Values above do not include the savings realized from four previous airframe multiyear contracts or from three previous engine multiyear contracts.													

Advance Procurement Requirements Analysis-Execution (P-10D)										Date: February 1998
Appropriation / Budget Activity/Serial No:										P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)
AIRCRAFT PROCUREMENT / 11 Aircraft										
(\$ in Millions)										
	PLT (mos)	1996			1997			1998		1999
		Contract Forecast Date	Actual Contract Date	Total Cost Request	Actual Contract Cost	Contract Forecast Date	Actual Contract Cost	Total Cost Request	Actual Contract Cost	Contract Forecast Date
End Item: UH-60L BLACK HAWK										
Airframe	24	28 N/A	Mar-96	N/A	32.0	30	Dec-96	Jul-97	45.6	Dec-97
Engine	25	58 N/A	May-96	N/A	30.5	36	Nov-96	Sep-97	16.2	Dec-97
Avionics	Various	Various	Various	N/A	2.5	Various	Various	N/A	7.3	
Auxiliary Power Unit	13	28 N/A	May-97	N/A	2.3	18	Mar-97	May-97	2.1	Feb-98
Armored Crew Seat	12	72 N/A	Jun-96	N/A	1.2	60	Jan-97	Sep-97	1.3	Feb-98
Hover Infrared Suppressor	10	28 N/A	Aug-96	N/A	1.5	15	Jan-97	Mar-97	1.9	
Elastomeric Rod End Bearings	10	112 N/A	Jun-96	N/A	0.4	72	Jan-97	Jun-97	0.6	
Extended Range Fuel System	13	28 N/A	Sep-97	N/A	1.0					
Blackout Device Kit	7	92 N/A	Jul-97	N/A	0.2					
Air Transportability Kit	14	25 N/A	Jul-97	N/A	1.0					
Other	N/A	N/A	May-96	N/A	0.4	N/A	N/A	Sep-97	0.7	Dec-97
Total Advance Procurement					73.0				75.0	65.6
Description: Quantities shown above are the actual contract quantities. No advance procurement funding was requested in the FY96 President's Budget since the Army's plan was discontinue production after the FY96 buy was complete. Funding was added by Congress. The budget request for FY97 was predicated on a five year multiyear contract at 36 aircraft per year (144 Army Aircraft over the period of FY98-01), while the current program is based on a multiservice procurement of 18 aircraft per year, of which the Army funded only 30 aircraft in this time frame--18 in FY98 and 12 in FY99. Ten aircraft per year were added by Congress in FY98 and the FY99 Budget request adds ten aircraft per year in FY99 through FY03. These aircraft may be added to the firm quantities already being procured, or bought on the option clause, depending on the availability of Advance Procurement funds.										

Description: Quantities shown above are the actual contract quantities. No advance procurement funding was requested in the FY96 President's Budget since the Army's plan was to discontinue production after the FY96 buy was complete. Funding was added by Congress. The budget request for FY97 was predicated on a five year multiyear contract at 36 aircraft per year (144 Army Aircraft over the period of FY98-01), while the current program is based on a multiservice procurement of 18 aircraft per year, of which the Army funded only 30 aircraft in this time frame--18 in FY98 and 12 in FY99. Ten aircraft per year were added by Congress in FY98 and the FY99 Budget request adds ten aircraft per year in FY99 through FY03. These aircraft may be added to the firm quantities already being procured, or bought on the option clause, depending on the availability of Advance Procurement funds.

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)														Date: February 1998		
Appropriation / Budget Activity/Serial No:												P-1 Line Item Nomenclature / Weapon System:				
AIRCRAFT PROCUREMENT / 1 / Aircraft												UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)				
(\$ in Millions)																
	Total Program	FY 97												Total Obl/Exp (Cum)	Ending Balance (Cum)	
		1996						1997								
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
FY 96																
Obl Plan	1.6														1.6	
Actual	7.1		.4								1.6				7.1	
Exp Plan																
Actual																
FY 97																
Obl Plan	67.3														67.3	
Actual	65.6						60.5	6.8							65.6	
Exp Plan							.8	1.0								
Actual													40.0			
FY 98																
Obl Plan	25.0															25.0
FY 99																
Obl Plan																
Narrative: Expenditure plans are not prepared. FY96 data reflects carry over only--total obligations planned and actual obligations for FY96 were 71.4M and 65.9M respectively. Of the 25.0M FY98 budget, 22.7M is planned for award in December, 1997 and the remaining \$2.3M is projected for Feb, 1998.																

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
P-1 Item Nomenclature:												
GUARDRAIL MODS (TIARA) (AZ2000)												
Program Elements for Code B Items:												
Code:												
Other Related Program Elements:												
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty												
Gross Cost	503.2	0.0	56.2	30.3	14.6	0.0	0.0	0.0	0.0	0.0	640.3	
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	503.2	0.0	56.2	30.3	14.6	0.0	0.0	0.0	0.0	0.0	640.3	
Initial Spares			0.4	5.7	3.3	5.9					22.1	
Total Proc Cost	503.2	0.0	56.6	36.0	17.9	5.9	0.0	0.0	0.0	0.0	662.5	
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Guardrail is an airborne signal intercept and emitter location system designed to provide tactical commanders with critical battlefield information via a joint Tactical Terminal (JTT) and other DoD tactical and fixed communications systems. The Army's GUARDRAIL/Common Sensor system (GRCS) will have a highly flexible architecture to allow rapid deployment to support contingency operations.

The GRCS integrates the Improved GUARDRAIL V for communications intelligence (COMINT), the Communications High Accuracy Airborne Location System (CHAALS/CHALS-X) for COMINT and precision emitter location, and the Advanced QUICKLOOK (AQL) for electronics intelligence (ELINT) and precision emitter location into a single signal intelligence (SIGINT) system. The airborne elements are integrated into the RC-12K/N/P/Q aircraft. Ground processing is conducted in the Integrated Processing Facility (IPF). Key performance requirements include a real-time COMINT and ELINT collection and high accuracy target location capability in communications and radar frequencies. The Interoperable Data Link (IDL)/Multi-Role Data Link (MRDL) connects the airborne elements and the ground processing element. A satellite remote relay will provide rapid deployment capability.

Exhibit P-40C Budget Item Justification Sheet				Date
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature		February 1998
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft		GUARDRAIL MODS (TIARA) (AZ2000)		
Program Elements for Code B Items		Code	Other Related Program Elements	
<p>JUSTIFICATION:</p> <p>FY99 funds the installation and fielding of modifications and equipment to systems procured in prior years. The modification requiring FY99 funds are listed below.</p> <p>The GR/CS System 2 Block Upgrade is a modification to the System 2 production contract to provide an advanced tactical SIGINT architecture and direct air to satellite relay (DASR). DASR allows the contingency corps to be deployed on worldwide missions with little to no airlift support and with reduced forwardly deployed personnel.</p> <p>The Interoperability modification gives GR/CS System 2 the ability to be interoperable with Air Force platforms in FY99.</p> <p>Additional FY99 funds have been provided to convert (3) RC-12N model training base aircraft to the RC-12P model configuration to support training of GRCS System 2 pilots. The aircraft will also be modified to accept mission payloads and will be used to replace the older and less capable RC-12H models.</p>				

Exhibit P-40M Budget Item Justification Sheet										
Appropriation / Budget Activity/Serial No.			P-1 Item Nomenclature			Date				
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft			GUARDRAIL MODS (TIARA) (AZ2000)			February 1998				
Program Elements for Code B Items			Code		Other Related Program Elements					
Description			Fiscal Years & Prior							
OSIP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC
CHAALS for System 3										
1-96-111-1111	Operational	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Interoperability With Air Force										
1-96-222-2222	Operational	6.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	8.4
Remote Relay for System 1										
1-96-333-3333	Operational	6.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	7.2
AQL Phase III Hardware Upgrade										
1-96-444-4444	Operational	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
System 2 Block Upgrade										
1-96-666-6666	Operational	170.6	15.3	13.2	12.9	0.0	0.0	0.0	0.0	212.0
TIBS and TRIXS for GRCS										
1-96-777-7777	Operational	13.1	12.6	1.4	0.0	0.0	0.0	0.0	0.0	27.1
Conversion of RC-12N's to RC-12P's										
1-99-111-1111	Operational	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	23.2
Totals										
		202.4	30.3	14.6	36.1	0.0	0.0	0.0	0.0	283.4

INDIVIDUAL MODIFICATION																																																																																														
										Date	February 1998																																																																																			
MODIFICATION TITLE: CHAALS for System 3 1-96-111-1111																																																																																														
MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common Sensor System 3 / RC12H.																																																																																														
DESCRIPTION / JUSTIFICATION: <p>The requirement exists for a Communications High Accuracy Airborne Location System (CHAALS) and precision location capability in System 3 which is currently deployed to Korea. Funds were used to procure commercial processing and peripheral equipment which allows use of residual equipment from the development contract. Installation was performed by government personnel. Funds also provided for training of the unit on the equipment.</p>																																																																																														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-between;"> <div> Contract Award: Delivery: </div> <div style="text-align: center;"> <table border="0"> <tr> <td><u>PLANNED</u></td> <td><u>ACCOMPLISHED</u></td> </tr> <tr> <td>1QFY96</td> <td>1QFY96</td> </tr> <tr> <td>3QFY96</td> <td>2QFY96.</td> </tr> </table> </div> </div>												<u>PLANNED</u>	<u>ACCOMPLISHED</u>	1QFY96	1QFY96	3QFY96	2QFY96.																																																																													
<u>PLANNED</u>	<u>ACCOMPLISHED</u>																																																																																													
1QFY96	1QFY96																																																																																													
3QFY96	2QFY96.																																																																																													
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>1</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td>1</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	1																				Outputs	1																			
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																													
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																										
Inputs	1																																																																																													
Outputs	1																																																																																													
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">To Complete</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th></th><th></th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>1</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td>1</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>													FY 2002				FY 2003				FY 2004				FY 2005				To Complete		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			Inputs	1																		Outputs	1																									
	FY 2002				FY 2003				FY 2004				FY 2005				To Complete																																																																													
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																														
Inputs	1																																																																																													
Outputs	1																																																																																													
METHOD OF IMPLEMENTATION: <div style="display: flex; justify-content: space-between;"> <div> Contract Dates: Delivery Date: </div> <div> ADMINISTRATIVE LEADTIME: FY 1997 FY 1997 </div> <div> PRODUCTION LEADTIME: FY 1999 FY 1999 </div> </div>																																																																																														

INDIVIDUAL MODIFICATION																																																																																																																						
MODIFICATION TITLE: Interoperability With Air Force 1-96-222-2222										Date																																																																																																												
MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common SENSOR 3 / RC-12H, Sys 4 / RC-12K, Sys 1 / RC-12N, System 2 / RC-12P										February 1998																																																																																																												
DESCRIPTION / JUSTIFICATION: <p>The requirement exists for all GUARDRAIL/Common Sensor Systems to be interoperable with Air Force platforms. Interoperability increases the SIGINT data available to the tactical commander by allowing the GUARDRAIL system to control and obtain data from Air Force platforms.</p>																																																																																																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2"></th> <th colspan="4"><u>PLANNED</u></th> <th colspan="4"><u>ACCOMPLISHED</u></th> </tr> <tr> <th colspan="2"></th> <th colspan="4"></th> <th colspan="4"></th> </tr> </thead> <tbody> <tr> <td colspan="2">Contract Award:</td> <td colspan="4">4QFY96</td> <td colspan="4">4QFY96</td> </tr> <tr> <td colspan="2">Software Build #1 I & T</td> <td colspan="4">2QFY97</td> <td colspan="4">2QFY97</td> </tr> <tr> <td colspan="2">Software Build #2 I & T</td> <td colspan="4">3QFY97</td> <td colspan="4">3QFY97</td> </tr> <tr> <td colspan="2">Software Build #3 I & T</td> <td colspan="4">3QFY97</td> <td colspan="4">3QFY97</td> </tr> <tr> <td colspan="2">Integration & Test</td> <td colspan="4">4QFY98</td> <td colspan="4">4QFY98</td> </tr> <tr> <td colspan="2">Preliminary Acceptance Test</td> <td colspan="4">4QFY98</td> <td colspan="4">4QFY98</td> </tr> </tbody> </table>																	<u>PLANNED</u>				<u>ACCOMPLISHED</u>														Contract Award:		4QFY96				4QFY96				Software Build #1 I & T		2QFY97				2QFY97				Software Build #2 I & T		3QFY97				3QFY97				Software Build #3 I & T		3QFY97				3QFY97				Integration & Test		4QFY98				4QFY98				Preliminary Acceptance Test		4QFY98				4QFY98																											
		<u>PLANNED</u>				<u>ACCOMPLISHED</u>																																																																																																																
Contract Award:		4QFY96				4QFY96																																																																																																																
Software Build #1 I & T		2QFY97				2QFY97																																																																																																																
Software Build #2 I & T		3QFY97				3QFY97																																																																																																																
Software Build #3 I & T		3QFY97				3QFY97																																																																																																																
Integration & Test		4QFY98				4QFY98																																																																																																																
Preliminary Acceptance Test		4QFY98				4QFY98																																																																																																																
Installation Schedule: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> </tbody> </table>															Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																		
Inputs																																																																																																																						
Outputs																																																																																																																						
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																		
Installation Schedule: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">FY 2006</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> </tbody> </table>															Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006																																																																																																					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																		
Inputs																																																																																																																						
Outputs																																																																																																																						
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																		
METHOD OF IMPLEMENTATION: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2"></th> <th colspan="4">ADMINISTRATIVE LEADTIME:</th> <th colspan="4">PRODUCTION LEADTIME:</th> </tr> <tr> <th colspan="2"></th> <th colspan="4">Months</th> <th colspan="4">Months</th> </tr> </thead> <tbody> <tr> <td colspan="2">Contract Dates:</td> <td colspan="4">FY 1998</td> <td colspan="4">FY 1999</td> </tr> <tr> <td colspan="2">Delivery Date:</td> <td colspan="4">FY 1998</td> <td colspan="4">FY 1999</td> </tr> </tbody> </table>																	ADMINISTRATIVE LEADTIME:				PRODUCTION LEADTIME:						Months				Months				Contract Dates:		FY 1998				FY 1999				Delivery Date:		FY 1998				FY 1999																																																																			
		ADMINISTRATIVE LEADTIME:				PRODUCTION LEADTIME:																																																																																																																
		Months				Months																																																																																																																
Contract Dates:		FY 1998				FY 1999																																																																																																																
Delivery Date:		FY 1998				FY 1999																																																																																																																

INDIVIDUAL MODIFICATION														Date		February 1998				
MODIFICATION TITLE (Cont):														Interoperability With Air Force 1-96-222-2222						
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring Equipment	3	5.2																	3	5.2
Equipment, Nonrecurring		1.1																		1.1
Engineering Change Orders																				
Data		0.4																		0.4
Training Equipment																				
Support Equipment																				
Other																				0.4
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits			3	1.3															3	1.3
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment			3	1.3															3	1.3
Total Procurement Cost		6.7		1.7																8.4

INDIVIDUAL MODIFICATION

Remote Relay for System 1 1-96-333-3333

MODELS OF SYSTEMS AFFECTED:	GUARDRAIL/Common Sensor System 1 / RC-12N
-----------------------------	---

DESCRIPTION / JUSTIFICATION:

The requirement exists for GR/CS System 1 to provide precision location/targeting data while operating in remote mode. Currently, the system can not perform precision location for targeting through the satellite relay while being used in remote operation. The required precision location hardware will be purchased from an ongoing production contract and fabrication will be performed by Tobyhanna Army Depot. Installation will be at the unit with efforts structured around system availability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	<u>PLANNED</u>	<u>ACOMPLISHED</u>
System Requirement Review:	4QFY96	3QFY96

Quarterly Reviews: Quarterly

System I & T: 2QFY98.

Installation Schedule:[illegible][illegible]

METHOD OF IMPLEMENTATION:

Contract Dates: FY 1997

Delivery Date: FY 1997

ADMINISTRATIVE LEADTIME:	Months	PRODUCTION LEADTIME:

	FY 1998	FY 1999
1. Operating Expenses	1,000,000	1,000,000
2. Capital Expenses	500,000	500,000
3. Debt Service	200,000	200,000
4. Other Expenses	100,000	100,000
5. Total Expenses	1,800,000	1,800,000
6. Revenue	1,800,000	1,800,000
7. Surplus/Deficit	0	0

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): Remote Relay for System 1 1-96-333-3333													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity													
Installation Kits													
Installation Kits, Nonrecurring	1	0.5											1
Equipment													
Equipment, Nonrecurring		5.9											5.9
Engineering Change Orders													
Data		0.1											0.1
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits			1	0.7									1
FY 1997 Eqpt -- Kits													0.7
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- Kits													
FY 2001 Eqpt -- Kits													
FY 2002 Eqpt -- Kits													
FY 2003 Eqpt -- Kits													
TC Equip-Kits													
Total Installation			1	0.7									1
Total Procurement Cost		6.5		0.7									7.2

INDIVIDUAL MODIFICATION																																																																																																																			
MODIFICATION TITLE: AQL Phase III Hardware Upgrade 1-96-444-4444										Date	February 1998																																																																																																								
MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common Sensor System 4 / RC-K, System 1 / RC-12N																																																																																																																			
DESCRIPTION / JUSTIFICATION: <p>The final phase of the Advanced Quicklook (AQL) modification program improves the sustainment and availability of AQL hardware. It includes enhanced flight line maintenance and system diagnostics to better isolate failed equipment and reduce the time required to perform maintenance. It also updates test procedures and equipment to incorporate changes made and lessons learned. It includes modifications to selected AQL Line Replaceable Units (LRUs) to correct several identified hardware problems arising from environmental conditions during extensive operational testing. Efforts will be done under the current production contract. There are no special installation requirements necessary. Equipment will be provided to the unit for their installation through normal maintenance procedures, at no additional cost.</p>																																																																																																																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><u>PLANNED</u></p> <p>Contract Award: 2QFY96</p> <p>Delivery: 2QFY97</p> </div> <div style="width: 45%;"> <p><u>ACCOMPLISHED</u></p> <p>2QFY96</p> <p>2QFY97</p> </div> </div>																																																																																																																			
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Inputs																																																																																																																			
Outputs																																																																																																																			
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th colspan="4">Complete</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td colspan="4"></td> </tr> </tbody> </table>												Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete				Inputs																					Outputs																					Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																																																		
Inputs																																																																																																																			
Outputs																																																																																																																			
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																			
METHOD OF IMPLEMENTATION: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Contract Dates: FY 1997</p> <p>Delivery Date: FY 1997</p> </div> <div style="width: 45%;"> <p>ADMINISTRATIVE LEADTIME: FY 1998</p> <p>PRODUCTION LEADTIME: FY 1999</p> </div> </div>																																																																																																																			

INDIVIDUAL MODIFICATION												Date	February 1998
MODIFICATION TITLE: System 2 Block Upgrade 1-96-666-6666													
MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common Sensor System 2 / RC-12P/Q													
DESCRIPTION / JUSTIFICATION:													
<p>The GUARDRAIL/Common Sensor System 2 Block Upgrade is a modification to the System 2 production contract. It provides the required outyear efforts in support of the basic GR/CS System 2 program and major ECPs to include Advanced Tactical SIGINT Architecture (ATSA), Advanced Situations Analysis and Reporting Tools (ASART) and Direct Air to Satellite Relay (DASR). These ECPs were awarded with prior year funds and included installation costs. These funds are the annualized costs required to support these efforts. These annualized costs include contractor and government engineering, interim contractor support, training, testing, fielding, and program management. There are no hardware quantity procurements planned.</p>													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
				<u>PLANNED</u>		<u>ACCOMPLISHED</u>							
IPF Upgrade Award:				1QFY93		1QFY93							
DASR Contract Awards:				2QFY94		4QFY94							
ASART Contract Award:				4QFY94		4QFY94							
System Fielding:				2QFY99									
M - Demo:				4QFY99									
System Hand-Off:				4QFY99									
Installation Schedule:													
Inputs Outputs		Pr Yr		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
		Totals	1	2	3	4	1	2	3	4	1	2	3
Inputs Outputs		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		Totals	
		1	2	3	4	1	2	3	4	1	2	3	4
METHOD OF IMPLEMENTATION:													
Contract Dates:				FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
Delivery Date:				FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
				ADMINISTRATIVE LEADTIME:		N/A		Months		PRODUCTION LEADTIME:		N/A	

INDIVIDUAL MODIFICATION													
System 2 Block Upgrade 1-96-666-6666													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity													
Installation Kits													
Installation Kits, Nonrecurring Equipment		99.3											99.3
Equipment, Nonrecurring		46.6											46.6
Engineering Change Orders		2.5											2.5
GFE / Aircraft Support		1.6											1.6
Training / Fielding		0.3											0.3
Support Equipment		0.5											0.5
Other		3.5											3.5
Interim Contractor Support		0.2											0.2
Testing		3.1											3.1
Gov't In-House/Prg Mgmt Adm		6.8											6.8
Contractor Engineering		6.2											6.2
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installation													
Total Procurement Cost		170.6		15.3		13.2		12.9					212.0

INDIVIDUAL MODIFICATION																																																																																			
										Date	February 1998																																																																								
MODIFICATION TITLE: TIBS and TRIXS for GR/CS 1-96-777-7777																																																																																			
MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common Sensor System 3 / RC-12H, Sys 4 / RC-12K, Sys 1 / RC12N, Sys 2 / RC-12P																																																																																			
DESCRIPTION / JUSTIFICATION: <p>This modification provides a Tactical Information Broadcast Service (TIBS) capability for GR/CS Systems 3, 4, and 1 and provides Tactical Reconnaissance Intelligence Exchange System (TRIXS) capability for all GR/CS systems. The TRIXS capability will allow broadcast and receive on both the collateral and SI networks. The TRIXS capability will be accomplished by using CECOM's Intelligence and Information Warfare Directorate (I2WD) as the system integrator. The hardware will be integrated into a shelterized HMMVV which will then be fielded to the existing GRCS Systems.</p>																																																																																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="2"><u>PLANNED</u></th> <th colspan="2"><u>ACCOMPLISHED</u></th> <th colspan="2"><u>PLANNED</u></th> <th colspan="2"><u>ACCOMPLISHED</u></th> </tr> <tr> <th></th> <th>3QFY96</th> <th>4QFY96</th> <th>3QFY97</th> <th>4QFY97</th> <th>3QFY98</th> <th>4QFY98</th> <th>3QFY99</th> <th>4QFY99</th> </tr> </thead> <tbody> <tr> <td>TIBS Contract Award:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TRIXS Contract Award:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TIBS System Requirement Review:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TRIXS System Requirement Review:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TIBS Quarterly Reviews:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TRIXS Quarterly Reviews:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>													<u>PLANNED</u>		<u>ACCOMPLISHED</u>		<u>PLANNED</u>		<u>ACCOMPLISHED</u>			3QFY96	4QFY96	3QFY97	4QFY97	3QFY98	4QFY98	3QFY99	4QFY99	TIBS Contract Award:									TRIXS Contract Award:									TIBS System Requirement Review:									TRIXS System Requirement Review:									TIBS Quarterly Reviews:									TRIXS Quarterly Reviews:								
	<u>PLANNED</u>		<u>ACCOMPLISHED</u>		<u>PLANNED</u>		<u>ACCOMPLISHED</u>																																																																												
	3QFY96	4QFY96	3QFY97	4QFY97	3QFY98	4QFY98	3QFY99	4QFY99																																																																											
TIBS Contract Award:																																																																																			
TRIXS Contract Award:																																																																																			
TIBS System Requirement Review:																																																																																			
TRIXS System Requirement Review:																																																																																			
TIBS Quarterly Reviews:																																																																																			
TRIXS Quarterly Reviews:																																																																																			
Installation Schedule: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="2">FY 1997</th> <th colspan="2">FY 1998</th> <th colspan="2">FY 1999</th> <th colspan="2">FY 2000</th> <th colspan="2">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>1</td> <td>2</td> </tr> <tr> <td>Outputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>												Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		Inputs	1	2	3	4	1	2	3	4	1	2	Outputs											Totals																																						
Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001																																																																										
Inputs	1	2	3	4	1	2	3	4	1	2																																																																									
Outputs																																																																																			
Totals																																																																																			
<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="2">FY 2002</th> <th colspan="2">FY 2003</th> <th colspan="2">FY 2004</th> <th colspan="2">FY 2005</th> <th colspan="2">Totals</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>1</td> <td>2</td> </tr> <tr> <td>Outputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>													FY 2002		FY 2003		FY 2004		FY 2005		Totals		Inputs	1	2	3	4	1	2	3	4	1	2	Outputs											Totals																																						
	FY 2002		FY 2003		FY 2004		FY 2005		Totals																																																																										
Inputs	1	2	3	4	1	2	3	4	1	2																																																																									
Outputs																																																																																			
Totals																																																																																			
METHOD OF IMPLEMENTATION: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="2">FY 1997</th> <th colspan="2">FY 1998</th> <th colspan="2">FY 1999</th> <th colspan="2">FY 2000</th> <th colspan="2">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Contract Dates:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Delivery Date:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>													FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		Contract Dates:											Delivery Date:																																																	
	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001																																																																										
Contract Dates:																																																																																			
Delivery Date:																																																																																			

INDIVIDUAL MODIFICATION													
Date													
MODIFICATION TITLE (Cont):													
TIBS and TRIXS for GR/CS 1-96-777-7777													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity			4	2.8									4
Installation Kits													
Installation Kits, Nonrecurring				1.3									1.3
Equipment	3	3.6		2.3									3
Equipment, Nonrecurring				3.2									5.9
Engineering Change Orders		9.2											12.4
Data				1.6									1.6
Training Equipment													
Support Equipment													
Other		0.3		0.7									1.0
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits			3	0.7									3
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- Kits					4	1.4							4
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installment			3	0.7	4	1.4							7
Total Procurement Cost		13.1		12.6		1.4							27.1

INDIVIDUAL MODIFICATION												Date	February 1998
MODIFICATION TITLE: Conversion of RC-12N's to RC-12P's 1-99-111-1111													
MODELS OF SYSTEMS AFFECTED: Guardrail/Common Sensor RC-12N Training Base Aircraft													
DESCRIPTION / JUSTIFICATION:													
This modification provides for the conversion of three (3) RC-12N training base aircraft into the RC-12P model aircraft. Provides for airframe modification, cabling, data link equipment and basic electronic rack layout to receive prime mission equipment (PME). The objective of this modification in the short term is to provide RC-12P's to the training base. In the long term replaces the oldest and the least capable GRCS aircraft, RC-12H's in Korea with System 3.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
Planned										Accomplished			
Aircraft Modification & Integration Contract Award: 1Q FY99													
Datalink Contract Award: 1Q FY99													
Datalink Contract Award: 1Q FY99													
Installation Schedule:													
Pr Yr		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001			
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs													
Outputs													
Totals													
Inputs													
Outputs													
Totals													
METHOD OF IMPLEMENTATION:													
Contract Dates: FY 1997													
Delivery Date: FY 1997													
ADMINISTRATIVE LEADTIME: 10 Months													
PRODUCTION LEADTIME: 18 Months													
FY 1998													
FY 1999													
Nov-98													
May-98													

INDIVIDUAL MODIFICATION																				
Date February 1998																				
Conversion of RC-12N's to RC-12P's 1-99-111-1111																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring							3	13.5											3	13.5
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment/GFE								0.4											0.4	
Other																				
Interim Contractor Support								0.1											0.1	
Testing								0.3											0.3	
Gov't In-House/Pgm Mgmt Admin								0.2											0.2	
Contractor Engineering																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment							3	8.7											3	8.7
Total Procurement Cost								23.2												23.2

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												AH1F MODS (AA0150)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	1,307.3	4.5	2.5	1.1	0.4	0.5	0.4	0.4	0.5	0.5	32.1	1,350.2	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	1,307.3	4.5	2.5	1.1	0.4	0.5	0.4	0.4	0.5	0.5	32.1	1,350.2	
Initial Spares	92.3											92.3	
Total Proc Cost	1,399.6	4.5	2.5	1.1	0.4	0.5	0.4	0.4	0.5	0.5	32.1	1,442.5	
Fltway U/C													
Wpn Sys Proc U/C													
<p>DESCRIPTION: The AH-1 is a single-engine, tandem seated helicopter with a maximum gross weight of 10,000 pounds and a T53L703 1800 SHP engine. The armament system consists of the M65 TOW Missile System, 20mm gun, and Hydra-70 rockets. The programs during FY95-01 provide for Rewire modification. All modifications are complete except Rewire. AH-1F fleet will be 402 aircraft through FY15. Funding is also required for safety and sustainment modifications, in addition to operational improvement modifications required to meet mission requirements through the year 2015.</p> <p>JUSTIFICATION: FY99 funds will be utilized to continue rewire of AH-1 fleet. Rewire improves RAM, lowers O&S cost and enhances safe operation.</p>													

Exhibit P-40M Budget Item Justification Sheet

Date

February 1998

Appropriation / Budget Activity/Serial No.

P-1 Item Nomenclature

AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

AH1F MODS (AA0150)

Program Elements for Code B Items

Other Related Program Elements

Code

A

Fiscal Years

Description

OSIP NO.	Classification
----------	----------------

Total

Rewire

	RAM	12.2	1.1	0.4	0.5	0.4	0.5	32.1	48.1
	1-93-01-0907	12.2	1.1	0.4	0.5	0.4	0.5	32.1	48.1

M65 Reliability/Maintainability (No P3a Set)

[illegible]

	12.3	1.1	0.4	0.5	0.4	0.5	32.1	48.2
Totals	12.3	1.1	0.4	0.5	0.4	0.5	32.1	48.2

INDIVIDUAL MODIFICATION																																																																																																																																								
MODIFICATION TITLE: Rewire 1-93-01-0907										Date February 1998																																																																																																																														
MODELS OF SYSTEMS AFFECTED: AH-1 COBRA/TOW																																																																																																																																								
DESCRIPTION / JUSTIFICATION:																																																																																																																																								
<p>Wiring of AH1 aircraft in Eighth United States Army (EUSA) began as a maintenance refurbishment program for specific aircraft in need of repair. Rewiring of remaining fleet of AH1 aircraft will replace the Kapton wire (which is deteriorating resulting in an increasing safety hazard and causing increased maintenance fleetwide) with new tefzel (MIL-W-22759) wiring. A class 2 Engineering Change Proposal (ECP) was approved 28 May 1992 for this change. The government of Korea paid for installations in Korea under a cost sharing program.</p>																																																																																																																																								
<p>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</p> <p>Kit Development is complete.</p>																																																																																																																																								
<p>Installation Schedule:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 1997</th> <th colspan="3">FY 1998</th> <th colspan="3">FY 1999</th> <th colspan="3">FY 2000</th> <th colspan="3">FY 2001</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>94</td> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Outputs</td> <td>94</td> <td>6</td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td>3</td> <td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 2002</th> <th colspan="3">FY 2003</th> <th colspan="3">FY 2004</th> <th colspan="3">FY 2005</th> <th colspan="2">To</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>Complete</th> <th>Totals</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>402</td> </tr> <tr> <td>Outputs</td> <td></td> <td></td> <td>4</td> <td></td> <td></td> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>281</td> <td>402</td> </tr> </tbody> </table>															Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	Inputs	94	6														Outputs	94	6				3					3			3		Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			To		1	2	3	4	1	2	3	4	1	2	3	4	Complete	Totals	Inputs														402	Outputs			4			4							281	402
Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																																																																											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3																																																																																																																									
Inputs	94	6																																																																																																																																						
Outputs	94	6				3					3			3																																																																																																																										
Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			To																																																																																																																											
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Totals																																																																																																																										
Inputs														402																																																																																																																										
Outputs			4			4							281	402																																																																																																																										
<p>METHOD OF IMPLEMENTATION: Ft. Drum</p> <p>Contract Dates: FY 1997 FY 1998 Feb 98 3 Months FY 1999 Feb 99</p> <p>Delivery Date: FY 1997 FY 1998 Mar 98 PRODUCTION LEADTIME: FY 1999 Mar 99</p>																																																																																																																																								

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): Rewire 1-93-01-0907													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity	100	8.3			3	0.3	4	0.4	3	0.3	3	0.3	402
Installation Kits													35.5
Installation Kits, Nonrecurring Equipment													
Equipment, Nonrecurring													0.9
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt --100 K	94	3.9	6	0.2									100
FY 1997 Eqpt -- Kits													4.1
FY 1998 Eqpt -- 3 Kits													3
FY 1999 Eqpt --4 Kits													4
FY 2000 Eqpt -- 4 kits													3
FY 2001 Eqpt --4 kits													3
FY 2002 Eqpt --4 kits													3
FY 2003 Eqpt -4- kits													4
TC Equip- 281 Kits													4
Total Installation	94	3.9	6	0.2	3	0.1	4	0.1	3	0.1	3	0.1	281
Total Procurement Cost		12.2		1.1				0.5				0.4	7.0
													11.7
													402
													32.1
													48.1

Exhibit P-40, Budget Item Justification Sheet											Date:	February 1998
Appropriation / Budget Activity/Serial No:											P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft											AH-64 MODS (AA6605)	
Program Elements for Code B Items:											Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	307.7	50.8	61.5	48.8	40.2	52.9	37.5	34.7	108.0	106.1	56.2	904.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	307.7	50.8	61.5	48.8	40.2	52.9	37.5	34.7	108.0	106.1	56.2	904.4
Initial Spares												
Total Proc Cost	307.7	50.8	61.5	48.8	40.2	52.9	37.5	34.7	108.0	106.1	56.2	904.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The AH-64 is a single main rotor, twin engine, tandem seat attack helicopter armed with HELLFIRE antitank missiles, 2.75 inch rockets, and 30MM gun. The AH-64 is capable of defeating armor in day, night, and adverse weather. The Target Acquisition Designation Sight (TADS) is housed in a turret on the nose of the AH-64 and consists of a TV, Forward Looking Infrared (FLIR), Direct View Optics, Laser Designator/ Rangefinder and Spot Tracker. The Pilot Night Vision Sensor (PNVS) is a FLIR which allows Nap-of-Earth operations at night by the pilot independent of the co-pilot/gunner's FLIR.

JUSTIFICATION: As the Army's primary Attack Helicopter, the AH-64 has been integrated in maneuver and fire plans of the combined arms team and will have the primary mission of destroying high value targets. The firepower, speed and agility of the AH-64 will provide a versatility to the combined arms team not otherwise available. Modifications are based on fleetwide reliability, availability, and maintainability (RAM) improvements and limited operational enhancements identified as a result of lessons learned during Operation Desert Storm. Funding for FY99 buys the following modifications:

- a. Backup Control System (BUCS)
- b. Fuel Control Warning Panel
- c. Embedded GPS/Inertial Navigation System (EGI)
- d. H-11 Bolt Replacement
- e. Airframe Modifications
- f. Alternate Laser Code
- g. TADS/PNVs I/II Upgrades
- h. TADS/PNVs Upgrades
- i. Apache Integrated Training Program Trainer Upgrade
- j. Cat B Trainer Restoration

Exhibit P-40M Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No.				P-1 Item Nomenclature				Date			
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft				AH-64 MODS (AA6605)				February 1998			
Program Elements for Code B Items			Code	Other Related Program Elements							
Description			Fiscal Years								
OSIP NO.	Classification	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Backup Control System (BUCS)											
1-86-01-2025	Unclassified	0.0	7.8	3.8	10.1	7.3	4.7	4.8	4.9	5.1	48.5
Fuel Control Warning Panel											
1-89-01-2063	Unclassified	6.0	1.8	2.1	1.8	1.3	0.0	0.0	0.0	0.0	13.0
Embedded GPS / Inertial Navigation System (EGI)											
1-92-01-2072	Operational	70.8	7.5	5.5	0.6	0.0	0.0	0.0	0.0	0.0	84.4
H-11 Bolt Replacement											
1-92-01-2035	Safety	4.9	0.0	0.8	1.0	1.0	1.0	1.3	1.3	1.4	12.7
Captive Boresight Harmonization Kit (CBHK) Upgrade (No P3a Set)											
1-92-01-2034	Op/Log	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2
Airframe Modifications											
1-95-01-2007	Op/Log	2.3	3.7	7.8	12.0	13.8	6.5	6.9	7.2	0.0	60.2
Alternate Laser Code											
1-92-01-2033	Operational	11.8	9.0	11.5	3.4	0.0	0.0	0.0	0.0	0.0	35.7
TADS/PNVIS I/II upgrades											
1-94-01-2004	Unclassified	41.7	10.2	6.4	7.8	0.0	0.0	0.0	0.0	0.0	66.1
TADS/PNVIS Upgrades											
1-94-01-2005	Unclassified	1.4	2.1	1.9	6.9	6.3	7.1	7.2	7.4	8.1	48.4
AITP 01 (No P3a Set)											
NA	Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	3.1	7.1	8.5	18.7
Miscellaneous Mods Less Than 2M (No P3a Set)											
NA	Unclassified	249.2	6.7	0.4	0.0	0.6	0.6	1.4	1.9	1.0	261.8
Image Intensifier (I2)											
1-91-01-2093	Unclassified	0.0	0.0	0.0	0.0	0.0	4.0	15.9	8.7	11.4	40.0

INDIVIDUAL MODIFICATION																									
MODIFICATION TITLE: Fuel Control Warning Panel 1-89-01-2063										Date															
MODELS OF SYSTEMS AFFECTED: AH-64 Apache																									
DESCRIPTION / JUSTIFICATION:																									
<p>Operational/safety. Modification to provide tactile discrimination of the fuel cross-feed on both the pilot and copilot/gunner panels and provide added annunciation on the pilot and copilot/gunner caution warning panel to indicate valve operation for fuel cross-feed and fuel transfer. This modification provides opposite cockpit awareness of fuel control mode and override status.</p>																									
<p>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</p> <p>Planned Contract award was Aug 94, awarded Aug 94. Planned date of first delivery was Apr 96, actual was Apr 96.</p>																									
Installation Schedule:																									
Pr Yr		FY 1997				FY 1998				FY 1999				FY 2000				FY 2001							
		1		2		3		4		1		2		3		4		1		2		3		4	
Totals		71		42		42		43		50		50		50		46		47		47		39		39	
Inputs		71		42		42		43		50		50		50		46		47		47		39		39	
Outputs		71		42		42		43		50		50		50		46		47		47		39		39	
Totals		FY 2002				FY 2003				FY 2004				FY 2005				To							
		1		2		3		4		1		2		3		4		1		2		3		4	
Inputs		71		42		42		43		50		50		50		46		47		47		39		39	
Outputs		71		42		42		43		50		50		50		46		47		47		39		39	
<p>METHOD OF IMPLEMENTATION: Contractor Tms</p> <p>Contract Dates: FY 1997</p> <p>Delivery Date: FY 1997</p>															<p>ADMINISTRATIVE LEADTIME: 12 Months</p> <p>PRODUCTION LEADTIME: 20 Months</p>										

INDIVIDUAL MODIFICATION														
Date February 1998														
MODIFICATION TITLE (Cont): Fuel Control Warning Panel 1-89-01-2063														
FINANCIAL PLAN: (\$ in Millions)														
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E														
PROCUREMENT														
Kit Quantity	758													
Installation Kits		4.9												
Installation Kits Nonrecurring		0.4												
Equipment														
Equipment Nonrecurring														
Engineering Change Orders														
Data														
Training Equipment														
Support Equipment														
Other														
PM System Support		0.1		0.3		0.4		0.1						0.9
Installation of Hardware														
FY 1996 & Prior Eqpt -- Kits														
FY 1997 Eqpt -- Kits														
FY 1998 Eqpt -- Kits														
FY 1999 Eqpt -- Kits														
FY 2000 Eqpt -- kits														
FY 2001 Eqpt -- kits														
FY 2002 Eqpt -- kits														
FY 2003 Eqpt -- kits														
(FY(TC) Eqpt (xx kits)														
Total Installation	71	0.6	169	1.5	200	1.7	185	1.7	133	1.3				
Total Procurement Cost		6.0		1.8		2.1		1.8		1.3				13.0

INDIVIDUAL MODIFICATION														
MODIFICATION TITLE: Embedded GPS / Inertial Navigation System (EGI) 1-92-01-2072										Date				
MODELS OF SYSTEMS AFFECTED: AH-64 Apache														
DESCRIPTION / JUSTIFICATION:														
<p>Operational/Desert Storm. This modification integrates an embedded Global Positioning System in an Inertial Navigation System box (EGI) into the AH-64A Apache. This Joint Service program provides a significant increase in accuracy for the navigation and fire control systems. This EGI is identical to the one being installed on the Longbow.</p>														
<p>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</p> <p>Planned production contract award was Apr 95, actual was Apr 95. Planned first delivery was May 96, actual was May 96. Planned first installation was Jul 96, actual Apr 96.</p>														
Installation Schedule:														
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001				
		1	2	3	4	1	2	3	4	1	2	3	4	
Totals		42	54	54	54	54	54	54	54	54	54	54	54	54
Inputs		42	54	54	54	54	54	54	54	54	54	54	54	54
Outputs														
		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006				
		1	2	3	4	1	2	3	4	1	2	3	4	1
Totals		500	500											
Inputs		500	500											
Outputs														
<p>METHOD OF IMPLEMENTATION: Contractor</p> <p>Contract Dates: FY 1997</p> <p>Delivery Date: FY 1997</p> <p>ADMINISTRATIVE LEADTIME: 24 Months</p> <p>PRODUCTION LEADTIME: 13 Months</p> <p>FY 1999</p> <p>FY 1999</p>														

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): Embedded GPS / Inertial Navigation System (EGI) 1-92-01-2072													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity	500	3.3											500 3.3
Installation Kits													
Installation Kits Nonrecurring													
Equipment	500	34.0											500 34.0
Equipment Nonrecurring		10.7											10.7
Engineering Change Orders													
Data		3.2											3.2
Training Equipment		2.1											2.1
Support Equipment		4.3											4.3
Other		9.4	2.0			0.3							11.7
PM System Support		3.0	1.3			0.8	0.1						5.2
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits	42	0.8	216	4.2	216	4.4	26	0.5					500 9.9
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- Kits													
FY 2001 Eqpt -- Kits													
FY 2002 Eqpt -- Kits													
FY 2003 Eqpt -- Kits													
(FY(TC) Eqpt (xx kits)													
Total Installation	42	0.8	216	4.2	216	4.4	26	0.5					500 9.9
Total Procurement Cost		70.8		7.5		5.5		0.6					84.4

INDIVIDUAL MODIFICATION																																																																																																																																																																																																																				
MODIFICATION TITLE: H-11 Bolt Replacement 1-92-01-2035														Date																																																																																																																																																																																																						
MODELS OF SYSTEMS AFFECTED: AH-64 Apache														February 1998																																																																																																																																																																																																						
DESCRIPTION / JUSTIFICATION: <p>Safety improvement. This modification addresses Federal Aviation Administration (FAA) advisory that H-11 hardware is subject to a higher than normal failure rate due to stress corrosion cracking and could potentially result in a safety problem. FAA recommended replacement of the H-11 hardware with acceptable substitutes such as Inconel. Procured 758 kits: 499 to be installed under A model program, 259 to be installed under D model program.</p>																																																																																																																																																																																																																				
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <p>Planned Contract award was May 95, actual was May 95. Planned date of first installation was Aug 96, actual was Aug 96.</p>																																																																																																																																																																																																																				
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>17</td><td>18</td><td>18</td><td>18</td> <td>20</td><td>21</td><td>21</td><td>21</td> <td>20</td><td>21</td><td>21</td><td>21</td> <td>22</td><td>22</td><td>22</td><td>22</td> <td>13</td><td>14</td><td>14</td><td>15</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th> <th>Months</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Totals</td> <td>17</td><td>18</td><td>18</td><td>18</td> <td>18</td><td>18</td><td>18</td><td>18</td> <td>18</td><td>18</td><td>18</td><td>18</td> <td>18</td><td>18</td><td>18</td><td>18</td> <td></td><td>499</td> </tr> </tbody> </table>															Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals	17	18	18	18	20	21	21	21	20	21	21	21	22	22	22	22	13	14	14	15	Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Months	Inputs																			Outputs																			Totals	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18		499
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																																																																																																																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																																
Inputs																																																																																																																																																																																																																				
Outputs																																																																																																																																																																																																																				
Totals	17	18	18	18	20	21	21	21	20	21	21	21	22	22	22	22	13	14	14	15																																																																																																																																																																																																
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																																																																																																																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Months																																																																																																																																																																																																		
Inputs																																																																																																																																																																																																																				
Outputs																																																																																																																																																																																																																				
Totals	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18		499																																																																																																																																																																																																		
METHOD OF IMPLEMENTATION: Contractor <table style="width: 100%;"> <tr> <td style="width: 50%;">Contract Dates: FY 1997</td> <td style="width: 50%;">ADMINISTRATIVE LEADTIME: 15 Months</td> </tr> <tr> <td>Delivery Date: FY 1997</td> <td>PRODUCTION LEADTIME: 15 Months</td> </tr> </table>															Contract Dates: FY 1997	ADMINISTRATIVE LEADTIME: 15 Months	Delivery Date: FY 1997	PRODUCTION LEADTIME: 15 Months																																																																																																																																																																																																		
Contract Dates: FY 1997	ADMINISTRATIVE LEADTIME: 15 Months																																																																																																																																																																																																																			
Delivery Date: FY 1997	PRODUCTION LEADTIME: 15 Months																																																																																																																																																																																																																			

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont):													
H-11 Bolt Replacement 1-92-01-2035													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity	758	3.4											758
Installation Kits		0.3											0.3
Installation Kits Nonrecurring Equipment													
Equipment Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment		1.1											1.1
Support Equipment													
Other		0.1			0.1								0.3
PM System Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- Kits													
FY 2001 Eqpt -- Kits													
FY 2002 Eqpt -- Kits													
FY 2003 Eqpt -- Kits													
(FY(TC) Eqpt (xx kits)													
Total Installation													
Total Procurement Cost		4.9			83	0.7	86	0.9	55	1.0	60	1.0	7.6
						0.8	1.0						12.7

MODELS OF SYSTEMS AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

Operational and logistical improvement. This modification provides for strengthening airframe components to withstand higher loading. Funding addresses three primary areas plus several additional areas susceptible to cracking. Specific modifications include strengthening components through application of additional material and replacement of components with different material. Required for AH-64A and extremely important for Longbow due to increase in weight. Installation costs are included in contract and are not broken out separately.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Planned Contract award (MY 1, Lot 1) was Nov 96, actual was Nov 96. Planned date of first delivery (MY 1, Lot 1) was Mar 97, actual was Mar 97. (MY 1, Lot 2) planned delivery is Mar 98. Contract for retrofit was awarded 30 Sep 97.

Installation Schedule:

Installation Schedule:																				
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals	6	6	6	6	13	17	18	18	28	28	29	31	39	39	42	43	50	49	42	36
Inputs	1	1	5	6	13	17	17	17	25	26	28	28	36	37	40	40	46	47	47	
Outputs																				

Totals																
FY 2002				FY 2003				FY 2004				FY 2005				To
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete
17	18	18	19	19	20	18	18	20	21	10						758
30	25	17	18	18	19	20	20	21	23	20	4					758

METHOD OF IMPLEMENTATION: Contractor																																	
Contract Dates: FY 1997				Nov 96				FY 1998				Dec 97				FY 1999					Dec 98												
Delivery Date: FY 1997				Mar 98				FY 1998				Nov 98				FY 1999				Nov 99													
ADMINISTRATIVE LEADTIME: 2 Months																	PRODUCTION LEADTIME: 11 Months																

INDIVIDUAL MODIFICATION														
Date												February 1998		
MODIFICATION TITLE: Alternate Laser Code 1-92-01-2033														
MODELS OF SYSTEMS AFFECTED: AH-64 Apache														
DESCRIPTION / JUSTIFICATION: <p>Operational improvement. This modification provides optimum laser targeting capability for the Hellfire Missile System under adverse countermeasure conditions and allows maximum use of planned Electro-Optic Counter Measures (EOCM) missile changes. Requires hardware/software modifications to the Laser Electronics Unit. Eliminates Remote Hellfire Electronics unit and four pylon Multiplex Remote Terminal Units (MRTU). Modification provides for compatibility with MIL-STD-1760. Provides modification to the Hellfire Launchers for use on the Longbow aircraft. There is no installation requirement for the launchers.</p>														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <p>Planned Contract award was Feb 96, actual was Oct 96. Planned date of first delivery is Feb 98</p>														
Installation Schedule:														
Inputs Outputs		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001				
		1	2	3	4	1	2	3	4	1	2	3	4	
Totals														
Inputs Outputs		FY 2002		FY 2003		FY 2004		FY 2005		To				
		1	2	3	4	1	2	3	4	Complete				
Totals														
METHOD OF IMPLEMENTATION: Contractor														
Contract Dates: FY 1997 Jan 97 FY 1998 Jan 98 FY 1999 Jan 99														
Delivery Date: FY 1997 May 98 FY 1998 May 99 FY 1999 May 00														
PRODUCTION LEADTIME: 15 Months														

INDIVIDUAL MODIFICATION																			Date	February 1998		
MODIFICATION TITLE (Cont):																			Alternate Laser Code 1-92-01-2033			
FINANCIAL PLAN: (\$ in Millions)																						
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$				
RDT&E		6.0																	6.0			
PROCUREMENT																						
Kit Quantity																						
Installation Kits																						
Installation Kits Nonrecurring																						
Equipment	30	1.8	76	3.5	132	7.1	17	1.7										255	14.1			
Equipment Nonrecurring		3.0																	3.0			
Engineering Change Orders		3.6		0.3		0.3													4.2			
Data																						
Training Equipment		0.1		0.2		0.3													0.6			
Support Equipment																						
Other		1.6		1.5		0.5													3.6			
Engr Services (PM AGMS)				1.9		1.5		1.5											4.9			
PM System Support		1.7		1.6		1.8		0.2											5.3			
Installation of Hardware																						
FY 1996 & Prior Eqpt -- Kits																						
FY 1997 Eqpt -- Kits																						
FY 1998 Eqpt -- Kits																						
FY 1999 Eqpt -- Kits																						
FY 2000 Eqpt -- kits																						
FY 2001 Eqpt -- kits																						
FY 2002 Eqpt -- kits																						
FY 2003 Eqpt -- kits																						
(FY(TC) Eqpt																						
Total Installment		11.8		9.0		11.5		3.4											35.7			
Total Procurement Cost																						

INDIVIDUAL MODIFICATION																																																																																																																													
MODIFICATION TITLE: TADS/PNVS I/II upgrades 1-94-01-2004										Date																																																																																																																			
MODELS OF SYSTEMS AFFECTED: AH-64 Apache										February 1998																																																																																																																			
DESCRIPTION / JUSTIFICATION: Safety and logistical improvement. Provides for system upgrade through new/updated hardware integration into Lots I&II TADS/PNVS systems. This configuration baseline upgrade will make the systems compatible with the rest of the Apache (TADS/PNVS) fleet. This effort will incorporate all ECP changes that were previously not required to be installed due to incompatibility of the systems. Additionally, this effort will eliminate anomalies associated with aging trainer aircraft that may cause them to be potentially unsafe to operate as a result of degraded fidelity. Also provides for offsite contractor support for the upgrade/integration of hardware in the TADS/PNVS. Installation costs are included in contract and are not broken out separately.																																																																																																																													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Planned Contract award was May 95, actual May 95. Planned date of first delivery was Aug 95, actual was Aug 95.																																																																																																																													
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 1997</th> <th colspan="3">FY 1998</th> <th colspan="3">FY 1999</th> <th colspan="3">FY 2000</th> <th colspan="3">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>1</th><th>2</th><th>3</th> <th>1</th><th>2</th><th>3</th> <th>1</th><th>2</th><th>3</th> <th>1</th><th>2</th><th>3</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>11</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td> </tr> <tr> <td>Outputs</td> <td>11</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td> </tr> <tr> <td>Inputs</td> <td>1</td><td>2</td><td>3</td> <td>1</td><td>2</td><td>3</td> <td>1</td><td>2</td><td>3</td> <td>1</td><td>2</td><td>3</td> <td>1</td><td>2</td><td>3</td> </tr> <tr> <td>Outputs</td> <td>1</td><td>2</td><td>3</td> <td>1</td><td>2</td><td>3</td> <td>1</td><td>2</td><td>3</td> <td>1</td><td>2</td><td>3</td> <td>1</td><td>2</td><td>3</td> </tr> <tr> <td>Totals</td> <td>63</td><td>63</td><td>63</td> <td>63</td><td>63</td><td>63</td> <td>63</td><td>63</td><td>63</td> <td>63</td><td>63</td><td>63</td> <td>63</td><td>63</td><td>63</td> </tr> </tbody> </table>															Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	Inputs	11	4	4	4	4	4	4	4	4	4	4	4	4	4	4	Outputs	11	4	4	4	4	4	4	4	4	4	4	4	4	4	4	Inputs	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	Outputs	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	Totals	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																																																																
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3																																																																																																														
Inputs	11	4	4	4	4	4	4	4	4	4	4	4	4	4	4																																																																																																														
Outputs	11	4	4	4	4	4	4	4	4	4	4	4	4	4	4																																																																																																														
Inputs	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3																																																																																																														
Outputs	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3																																																																																																														
Totals	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63																																																																																																														
METHOD OF IMPLEMENTATION: Contractor Contract Dates: FY 1997 Oct 96 Delivery Date: FY 1997 May 97																																																																																																																													
ADMINISTRATIVE LEADTIME: 2 Months FY 1998 Oct 97 FY 1998 May 98																																																																																																																													
PRODUCTION LEADTIME: 8 Months FY 1999 Oct 98 FY 1999 May 99																																																																																																																													

INDIVIDUAL MODIFICATION														Date	February 1998					
TADS/PNVS I/II upgrades 1-94-01-2004																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	30		15		9		9												63	
Installation Kits		12.8		6.4		4.0		4.1												27.3
Installation Kits Nonrecurring Equipment		12.4		1.7		1.1		1.8												17.0
Equipment Nonrecurring Engineering Change Orders																				
Data		0.1																		0.1
Training Equipment																				
Support Equipment		9.2		0.3		0.3		1.4												11.2
Other		7.2		1.8		1.0		0.5												10.5
PM System Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	11		16		3														30	
FY 1997 Eqpt -- Kits					13														15	
FY 1998 Eqpt -- Kits																			9	
FY 1999 Eqpt -- Kits																			9	
FY 2000 Eqpt -- kits									4											
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
(FY(TC) Eqpt (xx kits)																				
Total Installation	11		16		16		16		4										63	
Total Procurement Cost		41.7		10.2		6.4		7.8												66.1

INDIVIDUAL MODIFICATION											
										Date	February 1998
MODIFICATION TITLE: TADS/PNVs Upgrades 1-94-01-2005											
MODELS OF SYSTEMS AFFECTED: AH-64 Apache											
DESCRIPTION / JUSTIFICATION: <p>Operational, and logistical improvement. Provide for system upgrade through new/updated hardware integration into Lots III thru XII TADS/PNVs systems. Facilitate maintainers access to TADS/PNVs systems thereby allowing for accelerated application of outstanding ECPs. Additionally, satisfies program growth and the life extension requirements and provides for offsite contractor support for upgrades/integration of hardware in the TADS/PNVs. This will also provide a single configuration TADS/PNVs to the Longbow. Critical AH-64D element. Installation costs are included in contract and are not broken out separately.</p>											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <p>Planned Contract award was Dec 95, actual was Dec 95. Planned date of first delivery was Jun 96, actual was Jun 96.</p>											
Installation Schedule:											
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
Pr Yr											
Totals	1	2	3	4	1	2	3	4	1	2	3
Inputs	14	6	6	6	9	9	9	10	13	16	18
Outputs		1	5	6	6	9	9	9	10	12	15
		FY 2002		FY 2003		FY 2004		FY 2005		Totals	
1	2	3	4	1	2	3	4	1	2	3	4
18	18	18	18	18	18	18	18	18	18	18	18
17	18	18	18	18	18	18	18	18	18	18	501
Inputs											
Outputs											501
METHOD OF IMPLEMENTATION:											
Contract Dates: FY 1997 Apr 97 FY 1998 Mar 98				ADMINISTRATIVE LEADTIME: 2 Months				PRODUCTION LEADTIME: 8 Months			
Delivery Date: FY 1997 Nov 97 FY 1998 Oct 98				FY 1999 Dec 98				FY 1999 Jul 99			

INDIVIDUAL MODIFICATION														Date		February 1998				
TADS/PNVS Upgrades 1-94-01-2005																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	26	1.2	28	1.2	30	1.4	61	2.9	70	3.4	70	3.5	72	3.6	72	3.8	72	3.9	501	24.9
Installation Kits																				
Installation Kits Nonrecurring																				
Equipment				0.3		0.1	2.3			1.5	2.1		2.1			2.0		2.5		12.9
Equipment Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment				0.2		0.1	1.2			1.2	1.5		1.5			1.6		1.7		9.0
Other				0.4		0.3	0.5			0.2										1.6
PM System Support		0.2																		
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits			12		14														26	
FY 1997 Eqpt -- Kits					19		9												28	
FY 1998 Eqpt -- Kits							30												30	
FY 1999 Eqpt -- Kits							4		55		2								61	
FY 2000 Eqpt -- kits											58		12						70	
FY 2001 Eqpt -- kits													59						70	
FY 2002 Eqpt -- kits															11		11		72	
FY 2003 Eqpt -- kits															61		72		72	
(FY(TC) Eqpt (72 kits)			12				43		55		60		71		72		155		501	
Total Installment		1.4		2.1	33	1.9		6.9		6.3		7.1		7.2		7.4		8.1		48.4
Total Procurement Cost																				

INDIVIDUAL MODIFICATION											
										Date	February 1998
MODIFICATION TITLE: Image Intensifier (I2) 1-91-01-2093											
MODELS OF SYSTEMS AFFECTED: AH-64 Apache											
DESCRIPTION / JUSTIFICATION: <p>Safety and operational improvement. Provides Pilot Night Vision Sensor (PNVS) improvement through the addition of an image intensification device. Modification of the PNVS sensor to incorporate an image intensification tube provides an alternate pilotage sensor to augment the Forward Looking InfraRed (FLIR) sensor during marginal thermal contrast conditions. The complementary thermal and image intensification sensors improve operational effectiveness by significantly expanding the environmental conditions, which allow safe pilotage of the aircraft. Addition of another spectral band enhances safety by providing an additional way to detect obstacles or flight hazards. Installation costs are included in contract and are not broken out separately.</p>											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Planned Development Test and Evaluation is Jul 01. Planned Contract award is Feb 02. Planned date of first delivery is Feb 03.											
Installation Schedule:											
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
Pr Yr											
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs											
Outputs											
		FY 2002		FY 2003		FY 2004		FY 2005		Totals	
1		2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		Complete	
Inputs				7 18 18		18 18 18		18 18 18		571	
Outputs				7 18 18		18 18 18		18 18 18		571	
										758	
										758	
METHOD OF IMPLEMENTATION:											
FY 1997				FY 1998				FY 1999			
Delivery Date:				ADMINISTRATIVE LEADTIME:				PRODUCTION LEADTIME:			
FY 1997				FY 1998				FY 1999			
FY 1997				FY 1998				FY 1999			
6 Months				12 Months				12 Months			

INDIVIDUAL MODIFICATION													
MODIFICATION TITLE: Cat B Trainer Restoration NA										Date	February 1998		
MODELS OF SYSTEMS AFFECTED: AH-64 Apache													
DESCRIPTION / JUSTIFICATION:													
Operational requirement. Modify Cat B Trainers to meet induction criteria for Longbow Apache (AH64D) re-manufacture line at contractor plant.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
Planned induction at Corpus Christi Depot is May 98. Planned induction to re-manufacture line is Sep 99.													
Installation Schedule:													
Inputs Outputs	Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4
Inputs Outputs	Totals	1	2	3	4	1	2	3	4	1	2	3	4
	Totals	1	2	3	4	1	2	3	4	1	2	3	4
Inputs Outputs	Totals	1	2	3	4	1	2	3	4	1	2	3	4
	Totals	1	2	3	4	1	2	3	4	1	2	3	4
METHOD OF IMPLEMENTATION:													
Contract Dates: FY 1997 FY 1998 FY 1999 FY 2000 FY 2001													
Delivery Date: FY 1997 FY 1998 FY 1999 FY 2000 FY 2001													
ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months													

INDIVIDUAL MODIFICATION														February 1998				
Cat B Trainer Restoration NA														Date				
MODIFICATION TITLE (Cont):																		
FINANCIAL PLAN: (\$ in Millions)																		
FY 1996 and Prior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																		
PROCUREMENT																		
Kit Quantity																		
Installation Kits																		
Installation Kits, Nonrecurring Equipment					3	5.5	1	1.8	3	5.6	3	6.8	3	7.2	2	4.9	15	31.8
Equipment, Nonrecurring																		
Engineering Change Orders																		
Data																		
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
PM System Support						0.4		0.1										0.5
Installation of Hardware																		
FY 1996 & Prior Eqpt -- Kits																		
FY 1997 Eqpt -- Kits																		
FY 1998 Eqpt -- Kits																		
FY 1999 Eqpt -- Kits					3													3
FY 2000 Eqpt -- kits							2											2
FY 2001 Eqpt -- kits									3									3
FY 2002 Eqpt -- kits											3							3
FY 2003 Eqpt -- kits													3					3
TC Equip-2 Kits															1			1
Total Installment					3		2	1.9	3	5.6	3	6.8	3	7.2	1	4.9	15	32.3
Total Procurement Cost																		

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												P-1 Item Nomenclature:
Program Elements for Code B Items:												CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)
Code:												Other Related Program Elements:
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty												
Gross Cost	3630.8	9.2	11.3	48.5	101.2	84.9	192.9	211.5	214.8	460.0	5027.4	
Less PY Adv Proc	940.0										940.0	
Plus CY Adv Proc	940.0										940.0	
Net Proc (P-1)	3630.8	9.2	11.3	48.5	101.2	84.9	192.9	211.5	214.8	460.0	5027.4	
Initial Spares	260.4										260.4	
Total Proc Cost	3891.2	9.2	11.3	48.5	101.2	84.9	192.9	211.5	214.8	460.0	5287.8	
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The CH-47 heavy lift helicopter is a day/night tandem rotor helicopter powered by two T-55 turbine engines. The CH-47 is the Army's only active heavy cargo helicopter and is a key element in the Contingency CORPS. The CHINOOK provides invaluable battlefield mobility for tactical vehicles, artillery and engineer equipment, personnel and logistical support equipment. Cargo Helicopters provide the logistical base for Air-Land operations. The CHINOOK also provides support of operations other than war.

JUSTIFICATION: FY 99 funding procures safety and operational modifications to the CH-47D fleet plus trainers to maintain the latest configuration. Modifications are planned to fielded aircraft to incorporate safety and operational modifications to the CH-47D aircraft. These changes contribute to the effectiveness of heavy lift capability, maintainability, reliability, and aircraft/crew safety. The major modifications occurring during FY 99 are procurement of kits for Improved Rotor Head Shafts & Seals, Install Aft Pylon Fairing Vents, Replace Upper Seal for Swashplate, Halon Replacement, Conversion of the T55-L-712 to T55-GA-714A Engines, Engine Barrier Filter, and Extended Range Fuel System.

Exhibit P-40M Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No.				P-1 Item Nomenclature		Date					
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft				CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)		February 1998					
Program Elements for Code B Items				Code		Other Related Program Elements					
Description		Fiscal Years									
OSIP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Installation of Modification Kits											
Various	Operational/Safety	8.5	1.0	1.3	1.2	0.6	0.0	0.0	0.0	0.0	12.6
Work Platform - Aft Pylon											
1-95-01-0816	Safety	1.2	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	1.5
Improved Cross Shaft Adapters, Couplings, & Bolts											
1-95-01-0817	Safety	0.0	0.0	0.0	1.1	0.2	0.2	0.0	0.0	0.0	1.5
Improved Rotor Head Shafts & Seals											
1-95-01-0818	Operational	0.0	0.0	0.0	1.1	0.8	1.6	0.8	0.0	0.0	4.3
Improved Latch for Aft Pylon Doors											
1-95-01-0814	Safety	1.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	1.4
Install Handholds in Center Cargo Hook Hatch											
1-95-01-0819	Safety	0.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.1
Install Aft Pylon Fairing Vents											
1-95-01-0820	Safety	0.0	0.0	0.0	1.1	0.5	0.5	0.0	0.0	0.0	2.1
Improved Battery											
1-96-01-0822	Operational	0.0	0.0	2.5	0.0	0.1	0.1	0.0	0.0	0.0	2.7
Replace Upper Seal for Swasplate											
1-96-01-0823	Operational	0.0	0.0	0.0	1.7	0.5	1.8	1.2	0.0	0.0	5.2
Halon Replacement											
1-95-01-0813	Legislative	0.0	0.0	5.1	1.7	0.8	0.0	0.0	0.0	0.0	7.6
Engine Upgrade to T55-GA-714A Configuration											
1-96-01-0828	Operational	0.0	47.5	49.6	87.3	71.0	176.9	195.9	199.3	420.0	1,247.4
Engine Barrier Filter											
1-93-01-0807	Operational	0.0	0.0	0.0	0.0	4.6	5.1	6.1	7.9	6.8	30.6

Exhibit P-40M Budget Item Justification Sheet

Date _____

February 1998

Appropriation / Budget Activity/Serial No.

P-1 Item Nomenclature

AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)

Program Elements for Code B Items

Code

Other Related Program Elements

Extended Range Fuel System

1-97-01-822
Operational

69.3

33.2

7.6

7.4

9.9

5.8

5.1

3.6

0.0

0.0

Totals

1,387.3

460.0

214.8

211.4

192.9

84.9

101.2

62.4

48.5

11.3

INDIVIDUAL MODIFICATION																																																																																																																																																																																																																																																																																																																																																																																																											
MODIFICATION TITLE: Installation of Modification Kits Various										Date																																																																																																																																																																																																																																																																																																																																																																																																	
MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK and MH-47E																																																																																																																																																																																																																																																																																																																																																																																																											
DESCRIPTION / JUSTIFICATION:																																																																																																																																																																																																																																																																																																																																																																																																											
<p>Modification kits procured with FY 94 and prior funding remain uninstalled due to deliveries, scheduling, and funding. This funding will install these modification kits in the CH-47D aircraft and the MH-47E aircraft where appropriate. Installing all kits in all aircraft will result in more efficient maintenance, increased operational capability, and safety improvements.</p>																																																																																																																																																																																																																																																																																																																																																																																																											
<p>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</p> <p>Installations are ongoing.</p>																																																																																																																																																																																																																																																																																																																																																																																																											
<p>Installation Schedule:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>2675</td><td>315</td><td>315</td><td>320</td> <td>280</td><td>280</td><td>289</td><td>289</td> <td>310</td><td>310</td><td>310</td><td>314</td> <td>150</td><td>150</td><td>150</td><td>100</td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td>2675</td><td>315</td><td>315</td><td>320</td> <td>280</td><td>280</td><td>289</td><td>289</td> <td>310</td><td>310</td><td>310</td><td>314</td> <td>150</td><td>150</td><td>150</td><td>100</td> <td></td><td></td><td></td><td></td> </tr> <tr> <td colspan="20" style="text-align: center;">Totals</td> </tr> <tr> <td colspan="20"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">To</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th colspan="4">Complete</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td colspan="4"></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td colspan="4"></td> </tr> <tr> <td colspan="20" style="text-align: center;">Totals</td> </tr> <tr> <td colspan="20"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="16"></th> <th colspan="4">Months</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">PRODUCTION LEADTIME:</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> </thead> <tbody> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> </tbody> </table> </td> </tr> </tbody> </table> </td> </tr> <tr> <td colspan="15"> <p>METHOD OF IMPLEMENTATION: Contract</p> <p>Contract Dates: FY 1997</p> <p>Delivery Date: FY 1997</p> </td> </tr> </tbody> </table>															Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	2675	315	315	320	280	280	289	289	310	310	310	314	150	150	150	100					Outputs	2675	315	315	320	280	280	289	289	310	310	310	314	150	150	150	100					Totals																				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">To</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th colspan="4">Complete</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td colspan="4"></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td colspan="4"></td> </tr> <tr> <td colspan="20" style="text-align: center;">Totals</td> </tr> <tr> <td colspan="20"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="16"></th> <th colspan="4">Months</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">PRODUCTION LEADTIME:</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> </thead> <tbody> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> </tbody> </table> </td> </tr> </tbody> </table>																				Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				To				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete				Inputs																					Outputs																					Totals																				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="16"></th> <th colspan="4">Months</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">PRODUCTION LEADTIME:</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> </thead> <tbody> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> </tbody> </table>																																				Months																				PRODUCTION LEADTIME:																				FY 1999																				FY 1999																				5808																				5808				<p>METHOD OF IMPLEMENTATION: Contract</p> <p>Contract Dates: FY 1997</p> <p>Delivery Date: FY 1997</p>														
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																																																																																																																																																																																																																																																																																																										
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																																																																																																																																																																																																																							
Inputs	2675	315	315	320	280	280	289	289	310	310	310	314	150	150	150	100																																																																																																																																																																																																																																																																																																																																																																																											
Outputs	2675	315	315	320	280	280	289	289	310	310	310	314	150	150	150	100																																																																																																																																																																																																																																																																																																																																																																																											
Totals																																																																																																																																																																																																																																																																																																																																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">To</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th colspan="4">Complete</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td colspan="4"></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td colspan="4"></td> </tr> <tr> <td colspan="20" style="text-align: center;">Totals</td> </tr> <tr> <td colspan="20"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="16"></th> <th colspan="4">Months</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">PRODUCTION LEADTIME:</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> </thead> <tbody> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> </tbody> </table> </td> </tr> </tbody> </table>																				Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				To				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete				Inputs																					Outputs																					Totals																				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="16"></th> <th colspan="4">Months</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">PRODUCTION LEADTIME:</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> </thead> <tbody> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> </tbody> </table>																																				Months																				PRODUCTION LEADTIME:																				FY 1999																				FY 1999																				5808																				5808																																																																																																																																								
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				To																																																																																																																																																																																																																																																																																																																																																																																										
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																																																																																																																																																																																																																																																																																																																																										
Inputs																																																																																																																																																																																																																																																																																																																																																																																																											
Outputs																																																																																																																																																																																																																																																																																																																																																																																																											
Totals																																																																																																																																																																																																																																																																																																																																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="16"></th> <th colspan="4">Months</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">PRODUCTION LEADTIME:</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> <tr> <th colspan="16"></th> <th colspan="4">FY 1999</th> </tr> </thead> <tbody> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> <tr> <td colspan="16"></td> <td colspan="4">5808</td> </tr> </tbody> </table>																																				Months																				PRODUCTION LEADTIME:																				FY 1999																				FY 1999																				5808																				5808																																																																																																																																																																																																																																																																			
																Months																																																																																																																																																																																																																																																																																																																																																																																											
																PRODUCTION LEADTIME:																																																																																																																																																																																																																																																																																																																																																																																											
																FY 1999																																																																																																																																																																																																																																																																																																																																																																																											
																FY 1999																																																																																																																																																																																																																																																																																																																																																																																											
																5808																																																																																																																																																																																																																																																																																																																																																																																											
																5808																																																																																																																																																																																																																																																																																																																																																																																											
<p>METHOD OF IMPLEMENTATION: Contract</p> <p>Contract Dates: FY 1997</p> <p>Delivery Date: FY 1997</p>																																																																																																																																																																																																																																																																																																																																																																																																											

INDIVIDUAL MODIFICATION														February 1998						
MODIFICATION TITLE (Cont): Installation of Modification Kits Various														Date						
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	1465	5.0																	1465	5.0
Installation Kits																				
Installation Kits Nonrecurring Equipment																				
Equipment Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	2675	3.5	950	1.0	849	1.3	934	1.2	400	0.6									5808	7.6
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
(FY(TC) Eqpt (xx kits)																				
Total Installment	2675	3.5	950	1.0	849	1.3	934	1.2	400	0.6									5808	7.6
Total Procurement Cost		8.5		1.0		1.3		1.2		0.6										12.6

INDIVIDUAL MODIFICATION										Date	February 1998
MODIFICATION TITLE: Work Platform - Aft Pylon 1-95-01-0816											
MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK, MH-47E											
DESCRIPTION / JUSTIFICATION:											
Type of Improvement - Safety. During normal maintenance of the CH-47D aircraft, cracks have been noticed in the pin area of the platform. The pin area secures the work platform. This Engineering Change will eliminate these cracks by redesigning the work platform to eliminate the cracks. Continued cracking could result in the platform releasing from the aircraft causing safety concerns.											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:											
						<u>Planned</u>		<u>Accomplished</u>			
						May 97		Apr 97			
						Apr 98					
						May 98					
Production Contract Award First Production Hardware Delivery Field Retrofit Initiated											
Installation Schedule:											
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
Pr Yr											
Totals	1	2	3	4	1	2	3	4	1	2	3
Inputs											
Outputs											
		FY 2002		FY 2003		FY 2004		FY 2005		Totals	
1	2	3	4	1	2	3	4	1	2	3	4
Inputs											
Outputs											
METHOD OF IMPLEMENTATION:		Contractor		ADMINISTRATIVE LEADTIME:		9 Months		PRODUCTION LEADTIME:		12 Months	
Contract Dates:		FY 1997		FY 1998		FY 1999		FY 1999		FY 1999	
Delivery Date:		FY 1997		FY 1998		FY 1999		FY 1999		FY 1999	

INDIVIDUAL MODIFICATION																																																																																																																			
										Date	February 1998																																																																																																								
MODIFICATION TITLE: Improved Rotor Head Shafts & Seals 1-95-01-0818																																																																																																																			
MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK, MH-47E, and Trainers																																																																																																																			
DESCRIPTION / JUSTIFICATION: <p>Type of Improvement - Improved Operational Capability. The CH-47D field units have reported multiple instances of leaking rotorhead seals. This Engineering Change will eliminate rotorhead leakage problems by incorporating seals with improved materials and configuration in addition to incorporating speedy seals on the inboard and outboard sealing surfaces of the pitch shaft. This will cause the rotorheads to operate more efficiently and maintenance requirements will decrease.</p>																																																																																																																			
<div style="display: flex; justify-content: space-around;"> <div> DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: </div> <div> Planned </div> <div> Accomplished </div> </div>																																																																																																																			
<div style="display: flex; justify-content: space-between;"> <div> Production Contract Award First Production Hardware Delivery Field Retrofit Initiated </div> <div> Dec 98 Nov 99 Jan 00 </div> </div>																																																																																																																			
Installation Schedule:																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																				
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Inputs																																																																																																																			
Outputs																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th>To</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>40</td><td>40</td><td>31</td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td>40</td><td>40</td><td>31</td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Totals</td> <td>40</td><td>40</td><td>31</td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>471</td><td>471</td> </tr> </tbody> </table>												Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To	Inputs	40	40	31																Outputs	40	40	31																Totals	40	40	31														471	471										
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																																																																																																	
Inputs	40	40	31																																																																																																																
Outputs	40	40	31																																																																																																																
Totals	40	40	31														471	471																																																																																																	
METHOD OF IMPLEMENTATION: Contractor																																																																																																																			
Contract Dates: FY 1997																																																																																																																			
Delivery Date: FY 1997																																																																																																																			
ADMINISTRATIVE LEADTIME: 9 Months																																																																																																																			
PRODUCTION LEADTIME: 12 Months																																																																																																																			
Contract Dates: FY 1998																																																																																																																			
Delivery Date: FY 1998																																																																																																																			

INDIVIDUAL MODIFICATION																				
Improved Rotor Head Shafts & Seals 1-95-01-0818																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits					471			1.1											471	1.1
Installation Kits Nonrecurring																				
Equipment																				
Equipment Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits									120	0.8		240	1.6	111	0.8				471	3.2
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
(FY(TC) Eqpt (xx kits)																				
Total Installation								1.1	120	0.8	240	1.6	111	0.8				471	3.2	
Total Procurement Cost									0.8	0.8	1.6	1.6		0.8					4.3	

INDIVIDUAL MODIFICATION																																																																																															
										Date	February 1998																																																																																				
MODIFICATION TITLE: Improved Latch for Aft Pylon Doors 1-95-01-0814																																																																																															
MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK and MH-47E																																																																																															
DESCRIPTION / JUSTIFICATION: Type of Improvement - Safety. Present design of the Aft Pylon Door Latches is inadequate due to vibrations which cause latches to open in flight. This improvement will incorporate design changes that will prevent these failures. Correction is required because continued degradation could cause the doors to come off in flight.																																																																																															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Planned Apr 97 Feb 98 Apr 98 </div> <div style="width: 45%;"> Accomplished Mar 97 </div> </div>																																																																																															
Installation Schedule:																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																				
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																														
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																											
Inputs																																																																																															
Outputs																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>468</td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>468</td><td></td> </tr> </tbody> </table>												Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			Inputs																	468		Outputs																	468									
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																														
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																															
Inputs																	468																																																																														
Outputs																	468																																																																														
METHOD OF IMPLEMENTATION: Contractor																																																																																															
Contract Dates: FY 1997																																																																																															
Delivery Date: FY 1997																																																																																															
ADMINISTRATIVE LEADTIME: 9 Months																																																																																															
PRODUCTION LEADTIME: 12 Months																																																																																															

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): Improved Latch for Aft Pylon Doors 1-95-01-0814													
FINANCIAL PLAN: (\$ In Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity	468	1.0											468 1.0
Installation Kits													
Installation Kits Nonrecurring Equipment													
Equipment Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits					234	0.2	234	0.2					468 0.4
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
(FY(TC) Eqpt (xx kits)													
Total Installment					234	0.2	234	0.2					468 0.4
Total Procurement Cost		1.0				0.2		0.2					1.4

INDIVIDUAL MODIFICATION														
MODIFICATION TITLE: Install Aft Pylon Fairing Vents 1-95-01-0820										Date		February 1998		
MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK, MH-47E, and Trainers														
DESCRIPTION / JUSTIFICATION:														
<p>Type of Improvement - Safety. The CH-47D Aft Pylon allows air intake to cool the combining transmission and surrounding components. This causes extreme air pressures to be created in the Aft Pylon resulting in a visible distortion of the Aft Pylon in flight and a deterioration in the clamshell doors and work platforms. This pressure has caused work platforms to open in flight and the clamshell doors to open and separate in flight. This engineering change proposal will improve safety to helicopter and crew by incorporating louvered air vents in the aft Pylon to alleviate the excess air pressure while the clamshell door and work platform stress/wear and alleviate these components flexing, opening, and separating in flight.</p>														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:														
<u>Planned</u> Dec 98 Nov 99 Jan 00										<u>Accomplished</u>				
<p>Production Contract Award First Production Hardware Delivery Field Retrofit Initiated</p>														
Installation Schedule:														
Pr Yr		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001				
Totals		1	2	3	4	1	2	3	4	1	2	3	4	
Inputs														
Outputs														
Totals														
Inputs														
Outputs														
Totals														
METHOD OF IMPLEMENTATION: Contractor														
Contract Dates: FY 1997														
Delivery Date: FY 1997														
ADMINISTRATIVE LEADTIME: 12 Months														
PRODUCTION LEADTIME: 12 Months														
FY 1998														
FY 1999														
FY 1999														
Nov 99														
Dec 98														

INDIVIDUAL MODIFICATION																		Date	February 1998		
MODIFICATION TITLE (Cont):																		Install Aft Pylon Fairing Vents 1-95-01-0820			
FINANCIAL PLAN: (\$ in Millions)																					
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Kit Quantity																					
Installation Kits							471	1.1											471	1.1	
Installation Kits Nonrecurring Equipment																					
Equipment Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
Installation of Hardware																					
FY 1996 & Prior Eqpt -- Kits																					
FY 1997 Eqpt -- Kits																					
FY 1998 Eqpt -- Kits																					
FY 1999 Eqpt -- Kits																					
FY 2000 Eqpt -- kits									241	0.5	230	0.5							471	1.0	
FY 2001 Eqpt -- kits																					
FY 2002 Eqpt -- kits																					
FY 2003 Eqpt -- kits																					
(FY(TC) Eqpt (xx kits)																					
Total Installation									241	0.5	230	0.5							471	1.0	
Total Procurement Cost								1.1		0.5		0.5								2.1	

INDIVIDUAL MODIFICATION															
														Date	
														February 1998	
MODIFICATION TITLE: Replace Upper Seal for Swashplate 1-96-01-0823															
MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK and Trainers															
DESCRIPTION / JUSTIFICATION: Type of Improvement - Improved Operational Capability. This improvement will incorporate a new seal to reduce/eliminate dust particles from getting into the rotating swashplate components. Dust is causing erosion of the swashplate. Replacement of the seal will improve bearing life of the swashplate.															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:															
<div style="display: flex; justify-content: space-around;"> <div> Planned Dec 98 Feb 00 Apr 00 </div> <div> Accomplished </div> </div>															
Production Contract Award First Production Hardware Delivery Field Retrofit Initiated															
Installation Schedule:															
Inputs Outputs	Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001					
	1	2	3	4	1	2	3	4	1	2	3	4			
	Totals														
Inputs Outputs	FY 2002		FY 2003		FY 2004		FY 2005		To						
	1	2	3	4	1	2	3	4	1	2	3	4			
	Totals														
METHOD OF IMPLEMENTATION: Contractor															
Contract Dates: FY 1997															
Delivery Date: FY 1997															
ADMINISTRATIVE LEADTIME: 9 Months															
PRODUCTION LEADTIME: 15 Months															
FY 1999															
FY 1999															

INDIVIDUAL MODIFICATION																				
Date February 1998																				
Replace Upper Seal for Swashplate 1-96-01-0823																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits Nonrecurring																				
Equipment																				
Equipment Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost																				

INDIVIDUAL MODIFICATION												
MODIFICATION TITLE: Halon Replacement 1-95-01-0813										Date		February 1998
MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK and MH-47												
DESCRIPTION / JUSTIFICATION:												
Type of Improvement - Legislative Compliance. Use of Halon violates the Montreal Protocol and violates the Clean Air Act. This modification will retrofit hand held aircraft fire extinguishers and the onboard fire extinguishing system in the engine nacelle. The current halon extinguishers and systems deplete the ozone level and will be replaced with a new chemical agent.												
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:												
						<u>Planned</u>			<u>Accomplished</u>			
Production Contract Award First Production Hardware Delivery Field Retrofit Initiated						Mar 98						
						Feb 99						
						Apr 99						
Installation Schedule:												
Inputs Outputs		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		
		1	2	3	4	1	2	3	4	1	2	3
Totals												
Inputs												
Outputs												
Totals												
Inputs Outputs		FY 2002		FY 2003		FY 2004		FY 2005		Totals		
		1	2	3	4	1	2	3	4	1	2	3
Totals												
Inputs												
Outputs												
Totals												
METHOD OF IMPLEMENTATION: Contractor												
Contract Dates: FY 1997 FY 1998 Mar 98 FY 1999 Dec 98												
Delivery Date: FY 1997 FY 1998 Feb 99 FY 1999 Nov 99												
PRODUCTION LEADTIME: 12 Months												

INDIVIDUAL MODIFICATION																																																																																																					
MODIFICATION TITLE: Engine Upgrade to T55-GA-714A Configuration 1-96-01-0828										Date	February 1998																																																																																										
MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK and Trainers																																																																																																					
DESCRIPTION / JUSTIFICATION: Type of Improvement - Improved Operational Capability. This modification will upgrade the T55-L-712 engine to T55-GA-714A configuration increasing power to allow the aircraft to carry its primary payloads under high altitude/temperatures. The CH-47D as configured does not meet its existing 1975 Required Operational Capability (ROC), i.e. 15,000 lbs. payload for 30 Nautical Miles radius at 4,000 feet/95 degrees Fahrenheit. The addition of numerous engineering changes to provide safety, the latest in operational technology, and improved communications has increased the empty weight of the aircraft. Upgrade of the T55-L-712 engine to T55-GA-714A configuration will provide the capability to meet the required operational capability.																																																																																																					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Planned Feb 97 Sep 97 Feb 99 Mar 99 </div> <div style="width: 45%;"> Accomplished Feb 97 Dec 97 </div> </div>																																																																																																					
Production Decision Low Rate Initial Production Contract Award First Production Hardware Delivery Engine Fielding Initiated																																																																																																					
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th>Pr Yr</th> <th colspan="2">FY 1997</th> <th colspan="2">FY 1998</th> <th colspan="2">FY 1999</th> <th colspan="2">FY 2000</th> <th colspan="2">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th></th> <th colspan="2">FY 2002</th> <th colspan="2">FY 2003</th> <th colspan="2">FY 2004</th> <th colspan="2">FY 2005</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td>Complete</td> </tr> <tr> <td>Inputs</td> <td>24</td><td>24</td><td>25</td><td>25</td><td>26</td><td>26</td><td>26</td><td>26</td><td>9</td> </tr> <tr> <td>Outputs</td> <td>24</td><td>24</td><td>25</td><td>25</td><td>26</td><td>26</td><td>26</td><td>26</td><td>9</td> </tr> </tbody> </table>												Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		Totals	1	2	3	4	1	2	3	4	1	2	3	4	Inputs													Outputs														FY 2002		FY 2003		FY 2004		FY 2005		To	Totals	1	2	3	4	1	2	3	4	Complete	Inputs	24	24	25	25	26	26	26	26	9	Outputs	24	24	25	25	26	26	26	26	9
Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001																																																																																												
Totals	1	2	3	4	1	2	3	4	1	2	3	4																																																																																									
Inputs																																																																																																					
Outputs																																																																																																					
	FY 2002		FY 2003		FY 2004		FY 2005		To																																																																																												
Totals	1	2	3	4	1	2	3	4	Complete																																																																																												
Inputs	24	24	25	25	26	26	26	26	9																																																																																												
Outputs	24	24	25	25	26	26	26	26	9																																																																																												
METHOD OF IMPLEMENTATION: Contractor Contract Dates: FY 1997 Dec 97 FY 1998 Mar 98 Delivery Date: FY 1997 Feb 99 FY 1998 Mar 99 FY 1999 Mar 99 ADMINISTRATIVE LEADTIME: 14 Months PRODUCTION LEADTIME: 12 Months																																																																																																					

INDIVIDUAL MODIFICATION																		
Date February 1998																		
Engine Upgrade to T55-GA-714A Configuration 1-96-01-0828																		
FINANCIAL PLAN: (\$ in Millions)																		
FY 1996 and Prior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																		
PROCUREMENT																		
Kit Quantity																		
Installation Kits																		
Installation Kits Nonrecurring																		
Engine Conversion Kits	47	21.6	48	23.0	87	42.0	69	33.9	172	85.9	184	93.6	183	95.1	360	252.7	1150	647.8
Engine Fielding Kits	47	8.5	48	9.0	70	13.2	58	11.1	150	29.3	165	32.9	167	33.9	179	37.4	884	175.3
Engine Conversions	47	11.8	47	12.2	87	22.8	69	18.4	172	46.7	184	50.9	183	51.7	361	105.1	1150	319.5
Airframe Kits	25	3.9	25	4.1	37	6.1	35	5.8	73	12.4	82	14.2	80	14.1	85	15.3	442	75.8
Logistic Support		1.8		1.3		2.3		1.1		2.1		3.1		3.0		6.4		21.1
Engine Conversion																		
Interim Contractor Support																		
Installation of Hardware																		
FY 1996 & Prior Eqpt -- Kits																		
FY 1997 Eqpt -- Kits					25	0.4											25	0.4
FY 1998 Eqpt -- Kits					25	0.4											25	0.4
FY 1999 Eqpt -- Kits							37	0.6									37	0.6
FY 2000 Eqpt -- kits									35	0.6							35	0.6
FY 2001 Eqpt -- kits											73	1.3	82	1.5			73	1.3
FY 2002 Eqpt -- kits																	82	1.5
FY 2003 Eqpt -- kits																	80	1.5
(FY(TC) Eqpt -- kits																	85	1.6
Total Installation					50	0.8	37	0.6	35	0.6	73	1.3	82	1.5	165	3.1	442	7.9
Total Procurement Cost		47.5		49.6		87.3		71.0		176.9		195.9		199.3		420.0		1247.4

INDIVIDUAL MODIFICATION																		February 1998		
MODIFICATION TITLE (Cont): Engine Barrier Filter 1-93-01-0807																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits					90	1.3			80	1.1	110	1.5	120	1.8	81	1.2			481	6.9
Installation Kits Nonrecurring					90	3.3			80	3.2	110	3.8	120	4.9	81	3.4			481	18.6
Equipment																				
Equipment Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits									90	0.8									90	0.8
FY 2001 Eqpt -- kits											80	0.8							80	0.8
FY 2002 Eqpt -- kits													110	1.2					110	1.2
FY 2003 Eqpt -- kits															120	1.3			120	1.3
(FY(TC) Eqpt (xx kits)															81	0.9			81	0.9
Total Installation									90	0.8	80	0.8	110	1.2	201	2.2			481	5.1
Total Procurement Cost						4.6				5.1		6.1		7.9		6.8				30.6

INDIVIDUAL MODIFICATION																																																																																																																			
Date										February 1998																																																																																																									
MODIFICATION TITLE: Extended Range Fuel System 1-97-01-822																																																																																																																			
MODELS OF SYSTEMS AFFECTED: CH-47D Chinook																																																																																																																			
DESCRIPTION / JUSTIFICATION:																																																																																																																			
<p>Type of Improvement - Improved Operational Capability. This funding provides the capability to rapidly refuel other weapon systems during war and/or conflict and self-deploy worldwide when a contingency force is anticipated, imminent, or in progress. This configuration will consist of crashworthy self-sealing (20 nautical miles) tactical tanks with a total capacity of 2,400 gallons. There is a requirement for a CH-47 internal fuel system to be used to supply fuel in forward areas either to keep aircraft in the battle or return them to a safe area to rearm and refuel.</p>																																																																																																																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																																			
<u>Planned</u> Jul 98 Jan 99 Apr 99						<u>Accomplished</u>																																																																																																													
Production Contract Award First Hardware Delivery Field Installation Initiated																																																																																																																			
Installation Schedule:																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals																					Inputs																					Outputs																				
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Totals																																																																																																																			
Inputs																																																																																																																			
Outputs																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th>Months</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>151</td><td>6</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>151</td><td>6</td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>151</td><td>6</td> </tr> </tbody> </table>												Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Months	Totals																	151	6	Inputs																	151	6	Outputs																	151	6										
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Months																																																																																																	
Totals																	151	6																																																																																																	
Inputs																	151	6																																																																																																	
Outputs																	151	6																																																																																																	
METHOD OF IMPLEMENTATION:																																																																																																																			
Contract Dates: FY 1997 FY 1998 FY 1999 Dec 98 Delivery Date: FY 1997 FY 1998 FY 1999 May 99																																																																																																																			

INDIVIDUAL MODIFICATION																			February 1998	
Extended Range Fuel System 1-97-01-822																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
CWERFS Kits					5	2.5	7	3.6	8	4.2	9	4.8	10	5.5	10	5.6	41	23.9	90	50.1
Installation Kits			15	0.5	21	0.7	24	0.8	27	0.9	30	1.1	30	1.1	30	1.1	123	4.7	270	9.8
Airframe Mod Kits			40	0.6	40	0.6	40	0.6	40	0.6	40	0.6	40	0.6	40	0.7	191	3.2	431	6.9
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																			40	0.2
FY 1999 Eqpt -- Kits																			40	0.2
FY 2000 Eqpt -- kits									40	0.2									40	0.2
FY 2001 Eqpt -- kits											40	0.2							40	0.2
FY 2002 Eqpt -- kits													40	0.2					40	0.2
FY 2003 Eqpt -- kits															40	0.2			40	0.2
TC Equip- 151 Kits																	40	0.2	191	1.2
Total Installment																	231	1.4	431	2.4
Total Procurement Cost						3.6		5.1		5.8		6.6		7.4		7.6		33.2		69.3

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												C-12 CARGO AIRPLANE MODS (AA0270)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	0.0	0.0	0.7	0.6	6.5	2.7	6.2	5.5	9.5	10.1	67.5	109.1	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	0.0	0.0	0.7	0.6	6.5	2.7	6.2	5.5	9.5	10.1	67.5	109.1	
Initial Spares													
Total Proc Cost	0.0	0.0	0.7	0.6	6.5	2.7	6.2	5.5	9.5	10.1	67.5	109.1	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: This modification updates and modernizes the C-12 aircraft communication, navigation and flight management equipment to current international standards in order to standardize the fleet, allow worldwide deployments, and upgrade capability for continued safe operations into the 21st Century.

JUSTIFICATION: FY 99 and FY 00 will provide funding for the C-12 avionics upgrade. The majority of the Army C-12 aircraft were purchased between 1971 and 1989 and were equipped with then current avionics and navigation equipment. Current Army modernization plans will retain the C-12 fleet in active service beyond 2017. Worldwide deployments using modern navigation and air traffic control facilities beyond the year 2000 are required. During deployments in support of Desert Storm/Desert Shield/Provide Comfort, only selected aircraft with non-standard modifications were capable of being deployed to and within the theater. Elimination of obsolete communication and navigation systems will enhance reliability and maintainability by employing current commercial systems thereby improving C-12 availability and cockpit standardization.

INDIVIDUAL MODIFICATION														
													Date	February 1998
MODIFICATION TITLE: Avionics System Cockpit Upgrade - Group II 1-96-01-0612														
MODELS OF SYSTEMS AFFECTED: C-12C, D, F, L and R														
DESCRIPTION / JUSTIFICATION: <p>This effort will update and modernize C-12 communications, navigation, and flight direction equipment to current international standards to standardize the fleet, allow worldwide deployments and upgrade capability for continued safe operations into the 21st Century. As currently equipped, the aircraft are not suitable for worldwide deployment nor capable of using modern navigation and air traffic control facilities. The following equipment is included in this upgrade: Passenger Noise Abatement Systems I and II, Flight Management System Data Loaders and Cartridges, Army Engine Trend Monitor System ARINC 429, Satellite Communications (SATCOM) Upgrade, Flight Display System 255, Flight Management System 800, ARC 210 w/Satellite Communications, Traffic Collision Avoidance System II, and Engine Instruments. The kit quantities reflected on the next page represent a wide variety of Avionics kits with different mixes each fiscal year. Additionally, kit configurations vary based on the aircraft that they will be installed on. Consequently, kit unit cost will vary significantly from year to year.</p>														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <p>Development is not required for Avionics System Cockpit Upgrade.</p>														
Installation Schedule:														
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001				
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4	
Totals		60	60	60	60	30	50	50	50	22	40	60	25	
Inputs		60	60	60	60	30	50	50	50	22	40	60	25	
Outputs		60	60	60	60	30	50	50	50	22	40	60	25	

		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		Totals	
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4
Totals		30	50	50	40	40	60	36	36	14	17	20	12
Inputs		30	50	50	40	40	60	36	36	14	17	20	12
Outputs		30	50	50	40	40	60	36	36	14	17	20	12
Totals		30	50	50	40	40	60	36	36	14	17	20	12
Inputs		30	50	50	40	40	60	36	36	14	17	20	12
Outputs		30	50	50	40	40	60	36	36	14	17	20	12

METHOD OF IMPLEMENTATION:			
Contract Dates:		Delivery Date:	
FY 1997	Jan 97	FY 1998	Mar 98
FY 1997	Jan 97	FY 1998	Mar 98
ADMINISTRATIVE LEADTIME: 3 Months		PRODUCTION LEADTIME: 1 Month	

Exhibit P-40, Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No:				Date:				February 1998			
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft				P-1 Item Nomenclature:				OH-58 MODS (AA0400)			
Program Elements for Code B Items:				Other Related Program Elements:							
				Code:				A			
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Total Prog
Proc Qty											
Gross Cost	318.6	0.8	2.4	1.1	0.7	0.1	0.5	0.5	0.5	0.0	325.6
Less PY Adv Proc											
Plus CY Adv Proc											
Net Proc (P-1)	318.6	0.8	2.4	1.1	0.7	0.1	0.5	0.5	0.5	0.0	325.6
Initial Spares	1.2										1.2
Total Proc Cost	319.8	0.8	2.4	1.1	0.7	0.1	0.5	0.5	0.5	0.0	326.8
Flyaway U/C											
Wpn Sys Proc U/C											

DESCRIPTION:

a. The OH-58A&C model helicopters are low silhouette, single rotor helicopters powered by a single gas turbine engine (T63-A-700/720) used for observation, scout, and command and control. This is a single pilot aircraft with provisions for a second pilot and the capability to carry two passengers or cargo in the rear cargo area. The OH-58C is an upgraded OH-58A model with a more powerful engine, transmission, navigational upgrade, and instrumentation. The OH-58A/C programs consist of incorporating the SINGARS-VHF-FM radio, Combat Lighting for Night Vision, an External 3 Micron Engine Oil Filter, and Global Positioning Systems. Funding is also required for safety modifications, in addition to operational improvement modifications required to meet mission requirements throughout the year 2015.

b. There are no plans to procure additional OH-58A&C's for the Army. Although the OH-58A/C fleet is being gradually downsized, approximately 363 aircraft will remain in the inventory until 2015. This includes approximately 71 "float" aircraft.

JUSTIFICATION: FY99 funding will be used to install modification kits procured in prior years.

INDIVIDUAL MODIFICATION												Date	February 1998
MODIFICATION TITLE: SINGARS-V 1-85-01-0286													
MODELS OF SYSTEMS AFFECTED: OH-58C													
DESCRIPTION / JUSTIFICATION:													
<p>This system provides VHF-FM radio communications of voice and data in secure or plain text. It replaces the AN/ARC-114 radio which is not secure and does not have frequency hopping capability.</p>													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
<p>All kits have been delivered.</p>													
<p>Installation of "A" kits is dependent upon "B" kits from PM SINGARS. Difference between procurement quantity and installation quantity is initial spares.</p>													
Installation Schedule:													
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001			
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4
Totals		3	3	3	3	10	10	10	10	9	9	9	9
Inputs		331				10	10	10	10	8	8	8	8
Outputs		331				10	10	10	10	8	8	8	8

		FY 2002		FY 2003		FY 2004		FY 2005		To		Totals	
1	2	3	4	1	2	3	4	1	2	3	4		
9	9	9	8	9	9	9	8					521	
9	9	9	8	9	9	9	8					521	

METHOD OF IMPLEMENTATION:		Contractor Teams		ADMINISTRATIVE LEADTIME:		Months		PRODUCTION LEADTIME:		Months	
Contract Dates:		FY 1997		FY 1998		FY 1998		FY 1999		FY 1999	
Delivery Date:		FY 1997		FY 1998		FY 1998		FY 1999		FY 1999	

INDIVIDUAL MODIFICATION																				
SINGGARS-V 1-85-01-0286																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	617	11.0																	617	11.0
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt --331	331	5.3	10	0.1	40	0.6			35	0.5	35	0.5	35	0.5	35	0.5			521	8.0
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	331	5.3	10	0.1	40	0.6			35	0.5	35	0.5	35	0.5	35	0.5			521	8.0
Total Procurement Cost		16.3		0.1		0.6				0.5		0.5		0.5		0.5				19.0

INDIVIDUAL MODIFICATION												Date	February 1998												
MODIFICATION TITLE: Global Positioning System (GPS) 1-96-01-0210																									
MODELS OF SYSTEMS AFFECTED: OH-58 A/C																									
DESCRIPTION / JUSTIFICATION:																									
Modification to install standard GPS provisions will improve navigational capabilities in all aircraft.																									
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																									
PLANNED												ACCOMPLISHED													
Contract Award												Mar 96													
Date of First Delivery												Jul 96													
PM GPS is responsible for "B" kit procurement and fielding. Difference between procurement quantity and installation quantity is initial spares.																									
Installation Schedule:																									
		FY 1997				FY 1998				FY 1999				FY 2000				FY 2001							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Totals		5	5	5	5	130				130				130											
Inputs																									
Outputs																									
		FY 2002				FY 2003				FY 2004				FY 2005				Totals							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete							
Inputs																									
Outputs																									
Totals																									
METHOD OF IMPLEMENTATION: Contractor Teams														ADMINISTRATIVE LEADTIME: 5 Months		PRODUCTION LEADTIME: 5 Months									
Contract Dates: FY 1997														FY 1998		FY 1999									
Delivery Date: FY 1997														FY 1998		FY 1999									

INDIVIDUAL MODIFICATION																				
Global Positioning System (GPS) 1-96-01-0210																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	300	0.8																		
Installation Kits																				
Installation Kits, Nonrecurring Equipment																			300	0.8
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- 291			20	0.1	130	0.1	130	0.1												
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installation			20	0.1	130	0.1	130	0.1											280	0.3
Total Procurement Cost		0.8		0.7		0.1		0.1												1.7

INDIVIDUAL MODIFICATION												Date	February 1998
MODIFICATION TITLE: Transmission External Oil Filter 1-90-01-0292													
MODELS OF SYSTEMS AFFECTED: OH-58A/C													
DESCRIPTION / JUSTIFICATION: This modification provides a 3 micron filter to reduce transmission maintenance cost and reduces risks of contaminants adversely affecting internal components. Installation will be stopped at 363 aircraft due to ARI retirements.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="text-align: center;"> PLANNED Jun 95 Jul 95 Feb 96 </div> <div style="text-align: center;"> ACCOMPLISHED Jun 95 Jul 95 Feb 96 </div> </div>													
Preliminary Design Review Contractor Test and Evaluation Date of First Delivery													
Difference between the procurement quantity and the installation quantity are initial spares.													
Installation Schedule:													
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001			
Pr Yr													
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4			
Inputs		187 50 50 50		26 26									
Outputs		187 50 50 50		26 26									
		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Totals	
1		2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4			
Inputs		363		363		363		363		363			
Outputs		363		363		363		363		363			
METHOD OF IMPLEMENTATION: OLR Contractor ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 8 Months													
Contract Dates: FY 1997 FY 1998 FY 1999													
Delivery Date: FY 1997 FY 1998 FY 1999													

INDIVIDUAL MODIFICATION																				
Date																				
February 1998																				
MODIFICATION TITLE (Cont):																				
Transmission External Oil Filter 1-90-01-0292																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	375	0.4																	375	0.4
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- 363	187	0.3	176	0.3															363	0.6
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installation	187	0.3	176	0.3															363	0.6
Total Procurement Cost		0.7		0.3																1.0

Exhibit P-40, Budget Item Justification Sheet											Date:
Appropriation / Budget Activity/Serial No:											February 1998
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft											P-1 Item Nomenclature:
C-20 AIRCRAFT MODS (AA0560)											
Program Elements for Code B Items:											Other Related Program Elements:
Code:											A
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty											
Gross Cost	2.9	2.9	2.2	0.9	0.8	0.8	0.8	0.8	0.8	0.0	13.8
Less PY Adv Proc											
Plus CY Adv Proc											
Net Proc (P-1)	2.9	2.9	2.2	0.9	0.8	0.8	0.8	0.8	0.8	0.0	13.8
Initial Spares											
Total Proc Cost	2.9	2.9	2.2	0.9	0.8	0.8	0.8	0.8	0.8	0.0	13.8
Flyaway U/C											
Wpn Sys Proc U/C											

DESCRIPTION:

a. The C-20 is a long-range, pressurized, passenger/cargo type jet aircraft equipped with two turbofan engines. The aircraft is capable of operating under day and night Instrument Flight Rules (IFR) conditions, in high density air traffic zones, and in icing weather conditions.

b. The Army C-20 and C-21 jet fleet consists of seven aircraft as follows: Two C-20E models procured with FY 87 funds and one C-20F model procured with FY 91 funds. One VC-11 aircraft was transferred to the Army from the Corps of Engineers in FY 90. This aircraft completed an upgrade in FY 93 and has been redesignated a C-20J. One C-21 (Lear jet 35) was seized/confiscated in the FY 81 timeframe. It was refurbished in FY 89. Two C-21 aircraft that were excessed by the Air Force were added to the fleet in FY 96.

JUSTIFICATION: FY 99 funds will be used to install the Satellite Communications/Future Air Navigation System into the C-20E and F aircraft. FY 00 - FY 06 funds will be used to meet future avionics requirements resulting from worldwide navigation transition to Global Positioning System (GPS) enroute and approach systems, Global Air Traffic Management (GATM), and Chairman of the Joint Chief of Staff Master Navigation Plan requirements.

Exhibit P-40M Budget Item Justification Sheet													
Appropriation / Budget Activity/Serial No.				Date		February 1998							
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft				P-1 Item Nomenclature		C-20 AIRCRAFT MODS (AA0560)							
Program Elements for Code B Items				Code		Other Related Program Elements							
Description				Fiscal Years									
OSIP NO.	Classification			FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Global Positioning System (GPS) (No P3a Set)													
1-93-01-0501	Operational			1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Flight Data Recorder (No P3a Set)													
1-94-01-0503	Safety			0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Cockpit Voice Recorder (No P3a Set)													
1-94-01-0505	Operational			0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Digital Flight Phone													
1-94-01-0505	Operational			0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Traffic Collision Avoidance System													
1-94-01-0503	Safety			0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Enhanced Ground Proximity Warning System													
1-94-01-0503	Safety			0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Satellite Communications/Future Air Navigation System													
1-94-01-0505	Operational			0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.6	4.6
Totals				2.2	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.6	8.6

INDIVIDUAL MODIFICATION															
MODIFICATION TITLE: Digital Flight Phone 1-94-01-0505										Date: February 1998					
MODELS OF SYSTEMS AFFECTED: C-21 & C-20E, F and J															
DESCRIPTION / JUSTIFICATION:															
<p>This upgrade to the current analog flight phone would allow for increased clarity, voice security, and seamless transition of calls from one cell zone to the next cell zone. Present system drops calls as it loses reception of ground stations. At the speeds these aircraft fly, this is a common occurrence. Digital flight phone, fax and data communications are possible, with service rates much lower than satellite communication rates. Addition of digital phone would allow passengers inexpensive and reliable phone rates over the Continental US, augmenting the INMARSAT satellite communication, which is essential outside of CONUS. The C-21 installation in FY 96 was \$.008K and the C-20E, F, & J installation in FY 98 will be \$.046K.</p>															
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:															
Production Contract Award: Planned - 4Q96 Accomplished - 4Q96 Production Delivery Starts : Planned - 4Q96 Accomplished - 4Q96 Kit Application Starts: Planned - 4Q96 Accomplished - 4Q96 Kit Application Complete: Planned - 4Q98															
Installation Schedule:															
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001					
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4		
Totals		3													
Inputs		3													
Outputs															
		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006					
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4		
Totals		1													
Inputs		1													
Outputs															
METHOD OF IMPLEMENTATION: Life Cycle Contract ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 1 Month Contract Dates: FY 1997 Jul 98 FY 1998 Jul 98 FY 1999 Jul 98 Delivery Date: FY 1997 Jul 98 FY 1998 Jul 98 FY 1999 Jul 98															

INDIVIDUAL MODIFICATION														Date	February 1998					
MODIFICATION TITLE (Cont):														Digital Flight Phone 1-94-01-0505						
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits	3	0.3			4	0.4													7	0.7
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- 3 Kits	3																		3	
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- 4 Kits					4														4	
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	3	0.3			4	0.4													7	0.7
Total Procurement Cost																				

INDIVIDUAL MODIFICATION																																																																																																																																																																																																																				
MODIFICATION TITLE: Traffic Collision Avoidance System 1-94-01-0503														Date																																																																																																																																																																																																						
MODELS OF SYSTEMS AFFECTED: C-20E and F																																																																																																																																																																																																																				
DESCRIPTION / JUSTIFICATION:																																																																																																																																																																																																																				
<p>This modification will install the Traffic Collision Avoidance System into the C-20E and F aircraft. This capability is mandatory for all major commercial air carriers and almost standard in most Gulfstream size corporate jets. The Traffic Collision Avoidance System can significantly reduce the possibility of a mid-air collision.</p>																																																																																																																																																																																																																				
<p>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</p> <p>Production Contract Award: Planned - 2Q97 Accomplished - 2Q97</p> <p>Production Delivery Starts: Planned - 2Q97 Accomplished - 2Q97</p> <p>Kit Application Starts: Planned - 2Q97 Accomplished - 2Q97</p> <p>Kit Application Complete: Planned - 2Q97 Accomplished - 2Q97</p>																																																																																																																																																																																																																				
<p>Installation Schedule:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">To</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th>Totals</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td><td>3</td><td>4</td><td></td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>															Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				To		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Totals	1	2	3	4		1	2	3	4	1	2	3	4	1	2	3	4			Inputs																			Outputs																		
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																																																																																																																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																																
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																																
Inputs																																																																																																																																																																																																																				
Outputs																																																																																																																																																																																																																				
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				To																																																																																																																																																																																																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Totals																																																																																																																																																																																																		
1	2	3	4		1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																																				
Inputs																																																																																																																																																																																																																				
Outputs																																																																																																																																																																																																																				
<p>METHOD OF IMPLEMENTATION: Life Cycle Contract ADMINISTRATIVE LEADTIME: 5 Months PRODUCTION LEADTIME: 1 Month</p> <p>Contract Dates: FY 1997 Feb 97 FY 1998 FY 1999</p> <p>Delivery Date: FY 1997 Feb 97 FY 1998 FY 1999</p>																																																																																																																																																																																																																				

INDIVIDUAL MODIFICATION													
MODIFICATION TITLE (Cont): Traffic Collision Avoidance System 1-94-01-0503													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity													
Installation Kits			3	0.8									3
Installation Kits, Nonrecurring Equipment													0.8
Equipment, Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- 3 Kits			3	0.1									3
FY 1998 Eqpt -- Kits													0.1
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installment			3	0.1									3
Total Procurement Cost				0.9									0.9

INDIVIDUAL MODIFICATION																
														Date		
														February 1998		
MODIFICATION TITLE: Enhanced Ground Proximity Warning System 1-94-01-0503																
MODELS OF SYSTEMS AFFECTED: C-20E and F																
DESCRIPTION / JUSTIFICATION: The Enhanced Ground Proximity Warning System utilizes aircraft position information provided by on board navigation equipment combined with a world-wide terrain database to provide aircrew with real time video/CRT display of approaching terrain. This technology will greatly enhance situational awareness with regard to surrounding terrain during air operations in airport terminal areas and when flying near the surface in unfamiliar areas. Installation in FY 98 will be \$.046K.																
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Production Contract Award: Planned - 3Q98 Production Delivery Starts: Planned - 3Q98 Kit Application Starts: Planned - 3Q98 Kit Application Complete: Planned - 3Q98																
Installation Schedule:																
Inputs Outputs	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																
Inputs Outputs	FY 2002		FY 2003		FY 2004		FY 2005		To							
	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
Totals																
METHOD OF IMPLEMENTATION: Life Cycle Contract ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 1 Month																
Contract Dates: FY 1997 FY 1998 Jun 98 Jun 98 FY 1999																
Delivery Date: FY 1997 FY 1998 Jun 98 Jun 98 FY 1999																

INDIVIDUAL MODIFICATION																
Date February 1998																
Enhanced Ground Proximity Warning System 1-94-01-0503																
FINANCIAL PLAN: (\$ in Millions)																
FY 1996 and Prior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																
PROCUREMENT																
Kit Quantity																
Installation Kits			3	0.5											3	0.5
Installation Kits, Nonrecurring																
Equipment																
Equipment, Nonrecurring																
Engineering Change Orders																
Data																
Training Equipment																
Support Equipment																
Other																
Interim Contractor Support																
Installation of Hardware																
FY 1996 & Prior Eqpt -- Kits																
FY 1997 Eqpt -- Kits																
FY 1998 Eqpt -- 3 Kits			3												3	
FY 1999 Eqpt -- Kits																
FY 2000 Eqpt -- kits																
FY 2001 Eqpt -- kits																
FY 2002 Eqpt -- kits																
FY 2003 Eqpt -- kits																
TC Equip-Kits			3	0.5											3	0.5
Total Installment																
Total Procurement Cost																

INDIVIDUAL MODIFICATION																																																																																																						
MODIFICATION TITLE: Satellite Communications/Future Air Navigation System 1-94-01-0505														Date																																																																																								
February 1998																																																																																																						
MODELS OF SYSTEMS AFFECTED: C-20E, F and J																																																																																																						
DESCRIPTION / JUSTIFICATION:																																																																																																						
<p>Future Air Navigation Systems (FANS) is part of the satellite technology established by the International Civil Aviation Organization (ICAO). It is navigation equipment for over ocean and large areas of continental land mass transmitted via Satellite Communications (SATCOM). Automatic Dependent Surveillance, which will be used to accurately determine and verify aircraft position, will also use both Satellite Navigation and SATCOM. The present C-20 SATCOM system does not address the requirements of FANS, however, it could be modified to do so, once the ICAO standard is in place.</p>																																																																																																						
<p>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</p> <p>Production Contract Award: Planned - 1Q99</p> <p>Production Delivery Starts: Planned - 1Q99</p> <p>Kit Application Starts: Planned - 1Q99</p> <p>Kit Application Complete: Planned - 2Q99</p>																																																																																																						
<p>Installation Schedule:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="2">FY 1997</th> <th colspan="2">FY 1998</th> <th colspan="2">FY 1999</th> <th colspan="2">FY 2000</th> <th colspan="2">FY 2001</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Outputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="2">FY 2002</th> <th colspan="2">FY 2003</th> <th colspan="2">FY 2004</th> <th colspan="2">FY 2005</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Outputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>															Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		Totals	1	2	3	4	1	2	3	4	1	2	3	4	Inputs													Outputs													Pr Yr	FY 2002		FY 2003		FY 2004		FY 2005		Totals	1	2	3	4	1	2	3	4	Inputs										Outputs									
Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		Totals																																																																																											
	1	2	3	4	1	2	3	4	1	2		3	4																																																																																									
Inputs																																																																																																						
Outputs																																																																																																						
Pr Yr	FY 2002		FY 2003		FY 2004		FY 2005		Totals																																																																																													
	1	2	3	4	1	2	3	4																																																																																														
Inputs																																																																																																						
Outputs																																																																																																						
<p>METHOD OF IMPLEMENTATION: Life Cycle Contract</p> <p>Contract Dates: FY 1997 FY 1998 FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005</p> <p>Delivery Date: FY 1997 FY 1998 FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005</p> <p>ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 1 Month</p>																																																																																																						

INDIVIDUAL MODIFICATION																		Date	February 1998	
MODIFICATION TITLE (Cont):																		Satellite Communications/Future Air Navigation System 1-94-01-0505		
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RD7&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- 4 Kits																				
FY 2000 Eqpt --4 kits																				
FY 2001 Eqpt --4 kits																				
FY 2002 Eqpt --4 kits																				
FY 2003 Eqpt --4 kits																				
TC Equip-Kits																				
Total Installation																				
Total Procurement Cost																				

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												LONGBOW (AA6670)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	0.0	0.0	535.3	389.5	493.2	607.0	728.5	702.4	709.9	654.3	3094.0	7914.1	
Less PY Adv Proc			116.9	16.8	30.4	36.9	41.7	39.8	36.9	29.3	128.9	477.6	
Plus CY Adv Proc		116.9	16.8	30.4	36.9	41.7	39.8	36.9	29.3	29.5	99.4	477.6	
Net Proc (P-1)	0.0	116.9	435.2	403.1	499.7	611.7	726.6	699.5	702.3	654.5	3064.5	7914.0	
Initial Spares				7.4	13.2	21.9	12.3	12.8	13.2	15.2		96.0	
Total Proc Cost	0.0	116.9	435.2	410.5	512.9	633.6	738.9	712.3	715.5	669.7	3064.5	8010.0	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELLFIRE missile. Two hundred twenty seven AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. Those AH-64D aircraft fielded without the FCR mission kits will have the T700-GE-701 engines, but can accept the FCR mission kit with T700-GE-701C engines. The Longbow Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly increasing weapon system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscuration. The weapon system will effectively engage and destroy advanced threat armor on the AirLand Battlefield of the late 1990s and into the next century. To be effective and survive on this future battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs).

JUSTIFICATION:

FY 99 funds buy 66 aircraft/40 FCRs, including associated support equipment, tooling, GFE, and training devices. Funding contains digitization requirements. The 18 October 95 Acquisition Decision Memorandum authorized Longbow Apache to proceed into production and award of single year contract not to exceed quantity of 18 aircraft in FY96. A multi-year contract was signed on 16 August 96. Airframe quantities and funding reflect a multi-year (MY) scenario. Multiyear contracts for the FCR mission kit were signed in Nov 97. Quantities and funding reflect this multiyear scenario. Under the Army Modernization Master Plan, all Apaches will be remanufactured to the common AH-64D configuration with 227 being equipped with the FCR kits and 701C engines.

Initial spares includes FCR components

*Unit costs for airframe and FCRs are on detailed P-40Rs.

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature:											
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft		LONGBOW APACHE MODS (AA6607)											
Program Elements for Code B Items:		Other Related Program Elements:											
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty			24	24	44	66	74	72	72	72	310	758	
Gross Cost	0.0	0.0	332.9	283.1	368.2	475.0	574.9	553.6	568.0	625.0	2964.8	6745.5	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	0.0	0.0	332.9	283.1	368.2	475.0	574.9	553.6	568.0	625.0	2964.8	6745.5	
Initial Spares													
Total Proc Cost	0.0	0.0	332.9	283.1	368.2	475.0	574.9	553.6	568.0	625.0	2964.8	6745.5	
Flyaway U/C			15.3	9.6	6.5	6.6	6.5	6.9	6.8	8.0	7.5	7.5	
Wpn Sys Proc U/C			17.0	12.3	9.0	7.6	8.2	8.1	8.3	9.2	9.9	9.5	

DESCRIPTION:
The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELLFIRE missile. Two hundred twenty seven AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. Those AH 64D aircraft fielded without the FCR mission kits will have the T700-GE-701 engines, but can accept the FCR mission kit with T700-GE-701C engines. The Longbow Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly increasing weapon system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscuration. The weapon system will effectively engage and destroy advanced threat armor on the AirLand Battlefield of the late 1990s and into the next century. To be effective and survive on this future battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs).

JUSTIFICATION:
FY 99 funds buy 66 aircraft, including associated support equipment, tooling, GFE, and training. Under the Army Modernization Master Plan, all Apaches will be remanufactured to the common AH-64D configuration with 227 being equipped with the FCR kits and 701C engines.

* Unit costs are annual procurement unit costs including advanced procurement.

INDIVIDUAL MODIFICATION																																																																																																																																			
MODIFICATION TITLE: Longbow Apache Mods TBD1										Date	February 1998																																																																																																																								
MODELS OF SYSTEMS AFFECTED: AH-64 Attack Helicopter (Apache)																																																																																																																																			
DESCRIPTION / JUSTIFICATION:																																																																																																																																			
<p>The Longbow Weapon System (AH-64D) consists of a modified AH-64A airframe, a Fire Control Radar (FCR) mission kit and a Longbow Hellfire missile. The AH-64 aircraft will be modified with those changes necessary to effectively and efficiently integrate the Fire Control Radar. These changes consist of increased electrical power, expanded forward avionics bays, increased cooling, upgraded processors, MANPRINT crew station and 701C engines. These upgrades will significantly enhance warfighting capability and battlefield survivability by providing for advanced digitized avionics and the employment of true fire and forget engagement capability.</p>																																																																																																																																			
<p>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</p> <p>Milestone 1B (DAB) Jul 89, Milestone II (DAB) Dec 90, Milestone III (DAB) Oct 95,</p> <p>Multiyear Lot 1 contract award Aug 96,</p> <p>First Production Delivery Mar 97,</p> <p>First Unit Equipped Planned Jul 98</p> <p>IOC Planned Oct 98</p>																																																																																																																																			
<p>Installation Schedule:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="3">FY 1997</th> <th colspan="3">FY 1998</th> <th colspan="3">FY 1999</th> <th colspan="3">FY 2000</th> <th colspan="3">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td> <td>3</td><td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td><td>3</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="3">FY 2002</th> <th colspan="3">FY 2003</th> <th colspan="3">FY 2004</th> <th colspan="3">FY 2005</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td> <td>3</td><td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td><td>Complete</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	Inputs																Outputs																	FY 2002			FY 2003			FY 2004			FY 2005			To	Totals	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Inputs														Outputs													
Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																																																																						
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3																																																																																																																				
Inputs																																																																																																																																			
Outputs																																																																																																																																			
	FY 2002			FY 2003			FY 2004			FY 2005			To																																																																																																																						
Totals	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																																																																						
Inputs																																																																																																																																			
Outputs																																																																																																																																			
<p>METHOD OF IMPLEMENTATION:</p> <p>Contract Dates: FY 1997 Nov 96 FY 1998 Dec 97 FY 1999 Dec 98</p> <p>Delivery Date: FY 1997 Mar 98 FY 1998 Nov 98 FY 1999 Nov 99</p> <p>ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 22 Months</p>																																																																																																																																			

INDIVIDUAL MODIFICATION																			Date	February 1998
Longbow Apache Mods TBD1																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
24		24		44		66		74		72		72		72		310		758		
	158.1		143.7		241.8		391.7		435.1		439.5		428.9		461.5		2003.5		4703.8	
	133.4		81.9		21.1		16.9		15.5		28.7		35.2		86.8		186.2		605.7	
	5.1		25.5		67.6		33.5		70.6		26.2		53.8		35.1		416.2		733.6	
	36.3		32.0		35.3		29.9		49.6		54.7		45.8		41.6		358.9		684.1	
					2.4		3.0		4.1		4.5		4.3						18.3	
RDT&E																				
PROCUREMENT																				
Aircraft Quantity																				
Recurring Hardware																				
Other Flyaway																				
Training Devices																				
Other Support																				
FCR Multiyear Contract																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost																				
332.9		283.1		368.2		475.0		574.9		553.6		568.0		625.0		2964.8		6745.5		

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												APACHE LONGBOW FCR (AA6608)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty			10	10	21	40	45	44	57			227	
Gross Cost	0.0	0.0	85.5	89.6	94.6	95.1	111.9	109.0	105.0	0.0	0.0	690.7	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	0.0	0.0	85.5	89.6	94.6	95.1	111.9	109.0	105.0	0.0	0.0	690.7	
Initial Spares													
Total Proc Cost	0.0	0.0	85.5	89.6	94.6	95.1	111.9	109.0	105.0	0.0	0.0	690.7	
Flyaway U/C			12.7	10.0	4.9	2.7	2.8	2.8	2.1				
Wpn Sys Proc U/C			12.7	10.0	4.9	2.7	2.8	2.8	2.1				

DESCRIPTION:
The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELFIRE missile. Two hundred twenty seven AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. Those AH 64D aircraft fielded without the FCR mission kits will have the T700-GE-701 engines installed, but can accept the FCR mission kit with T700-GE-701C engines. The Longbow Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly increasing weapon system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscuration. The weapon system will effectively engage and destroy advanced threat armor on the Airland Battlefield of the late 1990s and into the next century. To be effective and survive on this future battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs).

JUSTIFICATION:
FY 99 funds buy 40 FCRs. FCR quantities & funding reflect proposed multiyear procurements for FY 98-02. FY 95 Advance Procurement is included in AA6607. Under the Army Modernization Master Plan, all Apaches will be remanufactured to the common AH-64D configuration with 227 being equipped with the FCR kits and 701C engines. Balance of FCR contract funding is contained in AA6607.

*Unit costs are annual procurement unit costs including advanced procurement.

INDIVIDUAL MODIFICATION										February 1998																																																																			
MODIFICATION TITLE: Apache Longbow FCR TBD2																																																																													
MODELS OF SYSTEMS AFFECTED: AH-64 Attack Helicopter (Apache)																																																																													
DESCRIPTION / JUSTIFICATION: <p>The Longbow Fire Control Radar (FCR) is a millimeter wave target acquisition system developed for integration on the Apache Attack Helicopter. The FCR provides three tactical modes of operation. They are the Ground Targeting Mode (GTM), the Air Targeting Mode (ATM), and the Terrain Profile Mode (TPM). In the GTM, the FCR provides the capability to rapidly scan up to approximately 50 square kilometers of the battlefield. It uses selectable scan widths which are directionally controllable by the crew. In this mode, the FCR detects, locates, classifies, and prioritizes moving and stationary targets. The targets are classified as air defense units, track vehicles, wheel vehicles, helicopters, fixed wing aircraft, or unknown. It has the capability to detect stationary targets out to a range of six kilometers and moving targets out to eight kilometers. In the ATM the FCR detects, classifies and prioritizes airborne targets. The TPM provides terrain avoidance information to the crew for navigation during periods of reduced visibility. The FCR does all the above day or night and during periods of reduced visibility caused by atmospheric conditions and/or battlefield obscuration. In both targeting modes, the FCR provides rapid target acquisition and engagement while reducing exposure and providing multiple target engagement capability when coupled with the fire-and-forget Longbow Hellfire Missile. The FCR is a fully integrated system on the AH-64D which provides enhanced situational awareness, survivability, and lethality.</p>																																																																													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <table style="width:100%; margin-top: 10px;"> <tr> <td style="width: 40%;"></td> <td style="text-align: center;"><u>Plan</u></td> <td style="text-align: center;"><u>Actual</u></td> </tr> <tr> <td>Milestone 1B (DAB)</td> <td style="text-align: center;">Jul 89</td> <td style="text-align: center;">Jul 89</td> </tr> <tr> <td>Milestone II (DAB)</td> <td style="text-align: center;">Dec 90</td> <td style="text-align: center;">Dec 90</td> </tr> <tr> <td>Milestone III (DAB)</td> <td style="text-align: center;">Oct 95</td> <td style="text-align: center;">Oct 95</td> </tr> <tr> <td>Lot 1 contract award</td> <td style="text-align: center;">Mar 96</td> <td style="text-align: center;">Mar 96</td> </tr> <tr> <td>First Production Delivery</td> <td style="text-align: center;">Mar 97</td> <td style="text-align: center;">Mar 97</td> </tr> </table>												<u>Plan</u>	<u>Actual</u>	Milestone 1B (DAB)	Jul 89	Jul 89	Milestone II (DAB)	Dec 90	Dec 90	Milestone III (DAB)	Oct 95	Oct 95	Lot 1 contract award	Mar 96	Mar 96	First Production Delivery	Mar 97	Mar 97																																																	
	<u>Plan</u>	<u>Actual</u>																																																																											
Milestone 1B (DAB)	Jul 89	Jul 89																																																																											
Milestone II (DAB)	Dec 90	Dec 90																																																																											
Milestone III (DAB)	Oct 95	Oct 95																																																																											
Lot 1 contract award	Mar 96	Mar 96																																																																											
First Production Delivery	Mar 97	Mar 97																																																																											
Installation Schedule: <table style="width:100%; margin-top: 10px;"> <tr> <th style="text-align: left;">Pr Yr</th> <th colspan="3">FY 1997</th> <th colspan="3">FY 1998</th> <th colspan="3">FY 1999</th> <th colspan="3">FY 2000</th> <th colspan="3">FY 2001</th> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td> <td>3</td><td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td> <td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>											Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																	Outputs																
Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																													
Inputs																																																																													
Outputs																																																																													
<table style="width:100%; margin-top: 10px;"> <tr> <th style="text-align: left;">Pr Yr</th> <th colspan="3">FY 2002</th> <th colspan="3">FY 2003</th> <th colspan="3">FY 2004</th> <th colspan="3">FY 2005</th> <th colspan="3">Totals</th> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td> <td>3</td><td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td> <td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>											Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals			Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																	Outputs																
Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals																																																																
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																													
Inputs																																																																													
Outputs																																																																													
METHOD OF IMPLEMENTATION: Contractor																																																																													
Contract Dates: FY 1997 Jan 97																																																																													
Delivery Date: FY 1997 Mar 98																																																																													
ADMINISTRATIVE LEADTIME: 6 Months																																																																													
PRODUCTION LEADTIME: 22 Months																																																																													
FY 1998 Nov 97																																																																													
FY 1999 Nov 98																																																																													
FY 1999 Jan 00																																																																													

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): Apache Longbow FCR TBD2													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
FCR Quantity	10	80.1	10	59.6	21	94.6	40	95.1	45	111.9	44	109.0	227
Recurring Hardware													655.3
Other Flyaway		5.4		15.0									20.4
Training Device													
Other Support				15.0									15.0
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installment		85.5		89.6		94.6		95.1		111.9		109.0	
Total Procurement Cost										105.0			690.7

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:		P-1 Item Nomenclature:											
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft		LONGBOW (ADV PROC) (AA6670)											
Program Elements for Code B Items:		Other Related Program Elements:											
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Less PY Adv Proc													
Plus CY Adv Proc		116.9	16.8	30.4	36.9	41.7	39.8	36.9	29.3	29.5	99.4	477.6	
Net Proc (P-1)	0.0	116.9	16.8	30.4	36.9	41.7	39.8	36.9	29.3	29.5	99.4	477.6	
Initial Spares													
Total Proc Cost	0.0	116.9	16.8	30.4	36.9	41.7	39.8	36.9	29.3	29.5	99.4	477.6	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION:
The Longbow program encompasses modifications to the AH-64 Apache as well as upgrades to the aircraft systems for the AH-64D series to efficiently and effectively integrate the Fire Control Radar (FCR) and radar frequency (RF) missile. It provides an adverse weather fire-and-forget missile capability that increases the lethality and survivability. The Longbow Apache also retains the capability to fire the Semi-Active Laser Hellfire. The design enhancements increase operational capability of the crew and provide increased survivability and lethality while complying with Congressional direction to standardize the fleet to a common configuration.

JUSTIFICATION:
Under the Army Modernization Master Plan, all Apaches will be remanufactured to the common AH-64D configuration with 227 being equipped with the FCR kits and 701C engines. FY 99 funds Advance Procurement to support deliveries of airframes and FCRs. Long Lead funding is required to provide funding for those parts, tooling, test equipment, and materials which are lead time critical to the end item. Long lead funding is required to preserve the planned helicopter delivery schedule.

Advance Procurement Requirements Analysis-Budget Justification (P-10B)									
Appropriation / Budget Activity/Serial No:					Date:		February 1998		
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft					LONGBOW (ADV PROC) (AA6670)				
P-1 Line Item Nomenclature / Weapon System:					(\$ in Millions)				
					1999			2000	
End Item	PLT (mos)	Quantity Per Assembly	Unit Cost	Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
Airframe	30	Various Components	N/A	74	Dec 98	30.7	72	Dec 99	28.7
GFE - FCR Kit	30	Various Components	N/A	45	Nov 98	11.0	44	Nov 99	11.1
Total Advance Procurement						41.7			39.8

Description: Multi-year airframe contract awarded Aug 96. Above "Contract Forecast Date" for airframe represents "Funding action" dates for Lots IV and V. Miltiyear FCR contract awarded Nov 97. Above "contract forecast dates" represents funding action dates for Lots V and VI.

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												UH-1 MODS (AB0602)	
Program Elements for Code B Items:												Other Related Program Elements:	
Code:												A	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	348.5	8.8	4.9	6.1	2.6	3.8	4.5	4.4	3.3	3.3	0.0	390.2	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	348.5	8.8	4.9	6.1	2.6	3.8	4.5	4.4	3.3	3.3	0.0	390.2	
Initial Spares													
Total Proc Cost	348.5	8.8	4.9	6.1	2.6	3.8	4.5	4.4	3.3	3.3	0.0	390.2	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: The UH-1 helicopter is used for transportation of personnel, equipment and supplies, command & control, and medical evacuation. The UH-1 requires modification upgrades to ensure that it can operate on the modern battlefield and be logistically supportable through the year 2017. There are two models, the UH-1H and the UH-1V (MEDEVAC), most of which are located in National Guard units.

JUSTIFICATION: FY 99 funding will be used to procure and install navigation and communication avionics which are required because the currently installed avionics are quickly becoming logistically nonsupportable. Installation of modification kits is limited to those aircraft that will remain in the force structure through the year 2017.

Exhibit P-40M Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No.												Date
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												February 1998
P-1 Item Nomenclature												UH-1 MODS (AB0602)
Program Elements for Code B Items												
Other Related Program Elements												
Code												
Fiscal Years												
Description	OSIP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
UH-1 Radar Altimeter (AN/APN-209)												
1-76-01-0802		Safety	14.9	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	16.0
Improved Airborne Direction Finder (AN/ARN-149)												
1-84-01-1389		RAM	6.0	1.8	1.7	1.7	2.3	3.1	1.0	0.0	0.0	17.6
Improved VHF OMNI-Range (AN/ARN-123)												
1-84-01-1390		RAM	9.2	1.8	0.6	1.2	1.0	0.8	1.2	0.3	0.0	16.1
Single Channel Ground and Air Radio System (SINGARS)												
1-81-01-1393		RAM	4.0	0.4	0.1	0.7	1.2	0.5	1.1	0.3	0.4	8.7
AN/APX-100 Transponder												
1-81-01-1394		RAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	22.8	25.5
Upgrade UH-1 Synthetic Flight Simulator System (No P3a Set)												
1-82-01-1420		RAM	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Totals			34.1	6.1	2.6	3.8	4.5	4.4	3.3	3.3	23.2	85.3

INDIVIDUAL MODIFICATION												Date	February 1998
MODIFICATION TITLE: UH-1 Radar Altimeter (AN/APN-209) 1-76-01-0802													
MODELS OF SYSTEMS AFFECTED: UH-1H/V Helicopters													
DESCRIPTION / JUSTIFICATION:													
<p>The altimeter provides a lighted warning to the crew when the aircraft descends below or climbs above the desired altitude settings. Required for missions that use Night Vision Goggles or when flying over blowing snow, water, or featureless terrain.</p>													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:													
Development of the Radar Altimeter System is complete.													
Installation Schedule:													
Pr Yr		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001			
Totals		1	2	3	4	1	2	3	4	1	2	3	4
Inputs		760	10	20	20	9	10	10	10	15	12	12	12
Outputs		760	10	20	20	9	10	10	10	15	12	12	12
		FY 2002		FY 2003		FY 2004		FY 2005		To		Totals	
1		2	3	4	1	2	3	4	1	2	3	4	
Inputs													912
Outputs													912
METHOD OF IMPLEMENTATION: Contract Team													
Contract Dates:		FY 1997		Nov 96		FY 1998		FY 1999		PRODUCTION LEADTIME:		9 Months	
Delivery Date:		FY 1997		Sep 97		FY 1998		FY 1999					

INDIVIDUAL MODIFICATION

February 1998

Date

MODIFICATION TITLE: Improved Airborne Direction Finder (AN/ARN-149) 1-84-01-1389

MODELS OF SYSTEMS AFFECTED: UH-1H/V Helicopter

DESCRIPTION / JUSTIFICATION:

FAA regulations require that all aircraft flying in the vicinity of commercial airports be equipped with an ADF. The AN/ARN-149 is being procured to replace the old AN/ARN-83 which is still being used in the UH-1 but not other Army helicopters. The AN/ARN-83 is being phased out throughout the Army and has been declared non-supportable by CECOM, the Army's communication command that manages the system. An ADF is required in all military aircraft for utilization of tactical non-directional beacons on the battlefield.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development of the AN/ARN-149 system for the UH-1 is complete.

Installation Schedule:

Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	80	25	60	50	35	40	40	40	38	10	10	15	20	20	20	20	25	25	25	32
Outputs	80	25	60	50	35	40	40	40	38	10	10	15	20	20	20	20	25	25	25	32

Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To	Complete	To
Inputs	30	30	30	48																763
Outputs	30	30	30	48																763

METHOD OF IMPLEMENTATION:

Contract Team

Contract Dates:

FY 1997 Jan 97
FY 1997 Sep 97

FY 1998 Feb 98
FY 1998 Sep 98

ADMINISTRATIVE LEADTIME:

3 Months

PRODUCTION LEADTIME:

9 Months

FY 1999 Jan 99
FY 1999 Sep 99

INDIVIDUAL MODIFICATION																		
Date February 1998																		
MODIFICATION TITLE (Cont): Improved Airborne Direction Finder (AN/ARN-149) 1-84-01-1389																		
FINANCIAL PLAN: (\$ in Millions)																		
FY 1996 and Prior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																		
PROCUREMENT																		
Kit Quantity	408	1.4	50	0.1			80	0.2	107	0.3	138	0.4					783	2.4
Installation Kits																		
Installation Kits, Nonrecurring Equipment	341	4.1	50	0.7	67	0.8	80	1.1	107	1.5	138	2.0					783	10.2
Equipment, Nonrecurring Engineering Change Orders																		
Data																		
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
Installation of Hardware																		
FY 1996 & Prior Eqpt -- 408	80	0.5	170	1.0	158	0.9											408	2.4
FY 1997 Eqpt -- 50 Kits							50	0.4									50	0.4
FY 1998 Eqpt -- Kits																		
FY 1999 Eqpt -- 80 Kits									80	0.5							80	0.5
FY 2000 Eqpt -- 107 Kits											107	0.7					107	0.7
FY 2001 Eqpt -- 138 Kits													138	1.0			138	1.0
FY 2002 Eqpt -- kits																		
FY 2003 Eqpt -- kits																		
TC Equip-Kits																		
Total Installment	80	0.5	170	1.0	158	0.9	50	0.4	80	0.5	107	0.7	138	1.0			783	5.0
Total Procurement Cost		6.0		1.8		1.7		1.7		2.3		3.1		1.0				17.6

INDIVIDUAL MODIFICATION											
										Date	February 1998
MODIFICATION TITLE: Improved VHF OMNI-Range (AN/ARN-123) 1-84-01-1390											
MODELS OF SYSTEMS AFFECTED: UH-1H/V Helicopter											
DESCRIPTION / JUSTIFICATION: <p>The AN/ARN-123 is the Army's standard VOR receiver and will replace the old AN/ARN-82 which is still being used in the UH-1. The AN/ARN-82 is being phased out throughout the Army and has been declared non-supportable by CECOM, the Army's communication command that manages the system. The VOR is the primary navigational aid used for in-route navigation and is also required by the FAA for flights around commercial airports (most UH-1s are operated by the National Guard located around commercial airports).</p>											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <p>Development of the AN/ARN-123 system for the UH-1 is complete.</p>											
Installation Schedule:											
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
Pt Yr	1	2	3	4	1	2	3	4	1	2	3
Inputs	270	31	41	48	50	25	25	25	26	20	20
Outputs	270	31	41	48	50	25	25	25	26	20	20
		FY 2002		FY 2003		FY 2004		FY 2005		Totals	
	1	2	3	4	1	2	3	4	1	2	3
Inputs	8	8	8	6	12	12	12	14			
Outputs	8	8	8	6	12	12	12	14			
METHOD OF IMPLEMENTATION: Contract Team											
Contract Dates:		FY 1997		Jan 97		FY 1998		FY 1999		Jan 99	
Delivery Date:		FY 1997		Sep 97		FY 1998		FY 1999		Sep 99	
								PRODUCTION LEADTIME:		9 Months	

INDIVIDUAL MODIFICATION																	
Date February 1998																	
Improved VHF OMNI-Range (AN/ARN-123) 1-84-01-1390																	
MODIFICATION TITLE (Cont):																	
FINANCIAL PLAN: (\$ in Millions)																	
FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TOTAL	
Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$

INDIVIDUAL MODIFICATION											
										Date	February 1998
MODIFICATION TITLE: Single Channel Ground and Air Radio System (SINGGARS) 1-81-01-1393											
MODELS OF SYSTEMS AFFECTED: UH-1H/V Helicopter											
DESCRIPTION / JUSTIFICATION: <p>The AN/ARC-201 SINGGARS radio will replace the nonsupportable AN/ARC-114, AN/ARC-131 or AN/ARC-54 VHF radios currently installed. The old receivers are being phased out throughout the Army and have been declared nonsupportable by CECOM, the Army's communication command that manages these systems. The SINGGARS will also provide anti-jam, frequency hopping capability which the old radios are unable to provide.</p>											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <p>Development of the SINGGARS system for the UH-1 is complete.</p>											
Installation Schedule:											
Pr Yr		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
Totals		1	2	3	4	1	2	3	4	1	2
Inputs	407	10	10	5	7	4	3	3	3	10	10
Outputs	407	10	10	5	7	4	3	3	3	10	10
		FY 2002		FY 2003		FY 2004		FY 2005		To	Complete
Totals		1	2	3	4	1	2	3	4		
Inputs	30	30	30	30	10	10	10	10	10		
Outputs	30	30	30	30	10	10	10	10	10		
METHOD OF IMPLEMENTATION: Contract Date											
Contract Dates:		FY 1997		Jan 97		FY 1998		FY 1999		Jan 99	
Delivery Date:		FY 1997		Dec 97		FY 1998		FY 1999		Dec 99	
										12 Months	
										PRODUCTION LEADTIME:	

INDIVIDUAL MODIFICATION																		
AN/APX-100 Transponder 1-81-01-1394																		
MODIFICATION TITLE (Cont):																		
FINANCIAL PLAN: (\$ in Millions)																		
FY 1996 and Prior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																		
PROCUREMENT																		
Kit Quantity																		
Installation Kits																		
Installation Kits, Nonrecurring																		
Equipment																		
Equipment, Nonrecurring																		
Engineering Change Orders																		
Data																		
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
Installation of Hardware																		
FY 1996 & Prior Eqpt -- Kits																		
FY 1997 Eqpt -- Kits																		
FY 1998 Eqpt -- Kits																		
FY 1999 Eqpt -- Kits																		
FY 2000 Eqpt -- Kits																		
FY 2001 Eqpt -- Kits																		
FY 2002 Eqpt -- Kits																		
FY 2003 Eqpt -- 95 Kits																		
TC Equip- 688Kits																		
Total Installation																		
Total Procurement Cost																		

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												UH-60 MODS (AA0492)
P-1 Item Nomenclature:												
Other Related Program Elements:												
Code:												
A												
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty												
Gross Cost	383.8	35.4	23.7	12.4	26.2	15.9	15.4	90.9	173.4	0.0	798.8	
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	383.8	35.4	23.7	12.4	26.2	15.9	15.4	90.9	173.4	0.0	798.8	
Initial Spares												
Total Proc Cost	383.8	35.4	23.7	12.4	26.2	15.9	15.4	90.9	173.4	0.0	798.8	
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The UH-60A/L is a twin engine, single rotor helicopter that is used in the performance of the air assault, air cavalry and aeromedical evacuation missions. It is designed to carry a crew of four plus eleven combat-equipped troops or an external load up to 9,000 pounds. It performs the mission of transporting troops and equipment into combat, resupplying the troops while in combat and performing aeromedical evacuation, repositioning of reserves, and command and control. The UH-60A/L/Q is a major contributor across the continuum of military operations, i.e., civil disaster relief, drug intervention, national and humanitarian assistance.

JUSTIFICATION:

The modifications that will occur during FY99 are the UH-60A Refurbishment/Standardization modification, procurement and installation of the External Stores Support System (ESSS) Auxiliary Fuel Monitoring System (AFMS), procurement of the Battery/Power Light Relocate and the Night Vision Goggles (NVG) Lighting Lower Console. Additionally, funding also provides for common fleet modifications to be applied to the EH-60A QUICK FIX and MH-60K SOA aircraft. These modifications provide a more capable aircraft to support the combat mission requirements and provide for enhanced aircraft safety and more efficient and less expensive operation and support.

Exhibit P-40M Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No.					Date		February 1998				
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft					P-1 Item Nomenclature		UH-60 MODS (AA0492)				
Program Elements for Code B Items			Code		Other Related Program Elements						
Description			Fiscal Years								
OSIP NO.	Classification		FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Total
Refurbishment/Standardization											
1-92-01-1942	Op/Log	95.1	10.9	4.5	1.5	0.0	0.0	0.0	0.0	0.0	112.0
Single Channel Ground & Airborne Radio Sys (SINGARS)											
1-84-01-1977	Operational	46.2	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	47.5
Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS)											
1-94-01-1948	Safety	9.3	0.0	3.6	9.9	1.7	0.0	0.0	0.0	0.0	24.5
5/8" Fuel Line											
1-94-01-1950	Safety	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
Halon Changeout											
1-92-01-1945	Legislative	0.1	0.0	4.6	4.5	3.6	0.0	0.0	0.0	0.0	12.8
Battery/Power Light Relocate											
1-94-01-1953	RM	0.3	0.0	0.0	0.8	5.7	7.9	2.8	1.4	0.0	18.9
NVG Lighting Lower Console											
1-90-01-1933	Operational	1.3	0.6	0.0	5.0	4.9	2.4	0.6	0.0	0.0	14.8
Engine Driveshaft Redesign (No P3a Set)											
1-95-01-1957	Safety	0.0	0.0	0.0	0.0	0.0	0.0	0.3	10.5	12.4	23.2
Service Life Extension Program (No P3a Set)											
TBD	Operational	0.0	0.0	0.0	0.0	0.0	4.8	39.5	100.8	0.0	145.1
UH-60Q Medivac (No P3a Set)											
TBD1	Operational	0.0	0.0	9.3	0.0	0.0	0.0	0.0	37.5	58.8	105.6
Fire Hawk (No P3a Set)											
TBD2	Operational	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	2.9
Totals			155.1	12.4	26.2	21.7	15.9	15.4	90.9	173.4	511.0

INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Refurbishment/Standardization 1-92-01-1942

MODELS OF SYSTEMS AFFECTED: UH-60A Black Hawk

DESCRIPTION / JUSTIFICATION:

This is a block modification improvement. The modification kits have been procured in order to take advantage of a cost savings with an economic order quantity buy contract. This was considered to be more efficient than procuring 60 per year for 5 years. The total quantity of 300 kits have been procured and the engineering non-recurring effort has been obligated. The FY99 and prior effort is to install the kits. The UH-60 refurbishment/standardization program is the number one priority materiel change for the Black Hawk and has remained fully funded through a stretched schedule since initiation in 1991. This modification supports the plan for fielding of UH-60Ls to the "first to fight" units with the displaced UH-60As being provided to the Army Reserve and National Guard in support of the Congressional desire to modernize those units. The requirement is to refurbish and standardize 300 of the 550 older UH-60A Black Hawks.

ACCOMPLISHED

PLANNED

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Jun 91	Jun 91
Project Initiated	Mar 92	Apr 92
Production Contract Awarded	Aug 93	Jan 93
First Kit Applied	Sep 99	
Last Kit Applied		

Installation Schedule:

Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	236	10	10	12		7	6	4	2	2	1									
Outputs	236	10	10	12		7	6	4	2	2	1									

[illegible]

METHOD OF IMPLEMENTATION:	Depot	ADMINISTRATIVE LEADTIME:	PRODUCTION LEADTIME:

Contract Dates:

Delivery Date:

INDIVIDUAL MODIFICATION														February 1998						
Date																				
MODIFICATION TITLE (Cont):																				
Refurbishment/Standardization 1-92-01-1942																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	300	24.0																	300	24.0
Installation Kits																				
Installation Kits, Nonrecurring Equipment		8.5																		8.5
Equipment, Nonrecurring Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -300	236	62.6	42	10.9	17	4.5	5	1.5											300	79.5
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installation	236	62.6	42	10.9	17	4.5	5	1.5											300	79.5
Total Procurement Cost		95.1		10.9		4.5		1.5												112.0

INDIVIDUAL MODIFICATION										Date	February 1998		
MODIFICATION TITLE: Single Channel Ground & Airborne Radio Sys (SINGGARS) 1-84-01-1977													
MODELS OF SYSTEMS AFFECTED: UH-60A Black Hawk													
DESCRIPTION / JUSTIFICATION: Provides for installation of the Single Channel Ground and Airborne Radio System (SINGGARS) radio which allows the aircraft to communicate with the remainder of the Army in the secure anti-jam frequency hopping FM mode. Provides for incorporation of physical and electrical interfaces required to accommodate the installation of either the AN/ARC-201(V) or AN/ARC-186(V) radio system separately or in any combination with one another. SINGGARS fieldings are in process in Korea, USA Pacific, 18th Airborne Corps and III Corps. OLR teams will modify 1055 aircraft at 400 hours each for a total of 422,000 hours. 300 additional aircraft are being modified with SINGGARS under the Refurbishment/Standardization program at Corpus Christi Army Depot and AVCRAADS located in Connecticut and California.													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:										PLANNED		ACCOMPLISHED	
FY96 Installation Contract Awarded Last Kit Applied										Feb 96 Sep 98		Feb 96	
Installation Schedule:													
Pr Yr		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001			
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4			
Inputs		995		15 15 15 15		15 15 15 15		15 15 15 15		15 15 15 15			
Outputs		995		15 15 15 15		15 15 15 15		15 15 15 15		15 15 15 15			
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4			
Inputs		1055		1055		1055		1055		1055			
Outputs		1055		1055		1055		1055		1055			
METHOD OF IMPLEMENTATION: OLR Teams													
Contract Dates: FY 1997				ADMINISTRATIVE LEADTIME: FY 1998				PRODUCTION LEADTIME: FY 1999					
Delivery Date: FY 1997				ADMINISTRATIVE LEADTIME: FY 1998				PRODUCTION LEADTIME: FY 1999					

INDIVIDUAL MODIFICATION														Date	February 1998								
MODIFICATION TITLE (Cont):														Single Channel Ground & Airborne Radio Sys (SINGARS) 1-84-01-1977									
FINANCIAL PLAN: (\$ in Millions)																							
FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL					
Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$				
RDT&E																							
PROCUREMENT																							
1055	19.4																	1055	19.4				

INDIVIDUAL MODIFICATION																																																																																													
Date								February 1998																																																																																					
MODIFICATION TITLE: Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS) 1-94-01-1948																																																																																													
MODELS OF SYSTEMS AFFECTED: UH-60A Black Hawk																																																																																													
DESCRIPTION / JUSTIFICATION: <p>The Auxiliary Fuel Monitoring System shall provide the pilots with a fuel quantity display for each installed auxiliary fuel tank. Each tank will have its own fuel probe. The system will monitor external fuel for imbalance conditions that result in aircraft lateral center-of-gravity changes that exceed a certain designated value. If an imbalance is detected, the system will activate a light on the AFMS panel, the aux fuel segment light on the caution/advisory panel, and the master warning panel. Aircrews will have the capability to directly read the weight of all the auxiliary fuel that may be in each of the External Stores Support System (ESSS)/Extended Range Fuel System (ERFS) and store locations. This safety modification will continue to assure that a fully capable aircraft is available to support the combat mission requirement. Gauging will improve aircraft management of auxiliary fuel for everyday mission use of the system.</p>																																																																																													
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																													
PLANNED					ACCOMPLISHED																																																																																								
Project Initiated Production Contract Awarded First Kit Applied Last Kit Applied					Mar 94 Nov 95 Feb 98 Sep 00																																																																																								
Quantity procured includes 1 kit for ATCOM New Equipment Training Team (NETT).																																																																																													
Installation Schedule:																																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>										Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																				
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																												
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																									
Inputs																																																																																													
Outputs																																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>Complete</td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>										Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete		Inputs																			Outputs																										
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																												
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																												
Inputs																																																																																													
Outputs																																																																																													
METHOD OF IMPLEMENTATION: OLR Teams																																																																																													
Contract Dates: FY 1997																																																																																													
Delivery Date: FY 1997																																																																																													
ADMINISTRATIVE LEADTIME: 8																																																																																													
PRODUCTION LEADTIME: 6																																																																																													
FY 1998 May 98 FY 1999 May 99 FY 1998 Nov 98 FY 1999 Nov 99																																																																																													

INDIVIDUAL MODIFICATION																																																																																																																			
MODIFICATION TITLE: 5/8" Fuel Line 1-94-01-1950										Date																																																																																																									
February 1998																																																																																																																			
MODELS OF SYSTEMS AFFECTED: UH-60A Black Hawk																																																																																																																			
DESCRIPTION / JUSTIFICATION:																																																																																																																			
<p>The UH-60 has bubble traps in an existing 1" fuel line. Outgassing of aircraft fuel can occur at all temperatures and the bubbles generated subsequently collect in the bubble traps. Under certain conditions, the bubble can get large enough to cause the aircraft low fuel pressure lights to activate, and the engine to flame out due to fuel starvation. This change will replace the existing horizontal 1" inner diameter (ID) self-sealing fuel hose with a 5/8" ID self-sealing fuel hose.</p>																																																																																																																			
<div style="display: flex; justify-content: space-between;"> <div> DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: </div> <div> PLANNED </div> <div> ACCOMPLISHED </div> </div>																																																																																																																			
<div style="display: flex; justify-content: space-between;"> <div> Project Initiated Contract Awarded First Kit Installed Last Kit Installed </div> <div> Apr 94 Mar 95 Jun 96 Sep 97 </div> </div>																																																																																																																			
Installation Schedule:																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> </tr> <tr> <td>Outputs</td> <td>564</td><td>196</td><td>197</td><td>197</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td></td> <td>564</td><td>196</td><td>196</td><td>197</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs	564	196	197	197																		564	196	196	197																
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Inputs																																																																																																																			
Outputs	564	196	197	197																																																																																																															
	564	196	196	197																																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th>To</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="4"></td> <td colspan="2"></td> </tr> <tr> <td>Outputs</td> <td>1350</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td></td> <td>1350</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To	Inputs																			Outputs	1350																			1350																											
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																																																																																																	
Inputs																																																																																																																			
Outputs	1350																																																																																																																		
	1350																																																																																																																		
METHOD OF IMPLEMENTATION: OLR Teams																																																																																																																			
Contract Dates: FY 1997																																																																																																																			
Delivery Date: FY 1997																																																																																																																			
ADMINISTRATIVE LEADTIME:																																																																																																																			
FY 1998																																																																																																																			
FY 1998																																																																																																																			
PRODUCTION LEADTIME:																																																																																																																			
FY 1999																																																																																																																			
FY 1999																																																																																																																			

INDIVIDUAL MODIFICATION																																																																																																																						
														Date																																																																																																								
														February 1998																																																																																																								
MODIFICATION TITLE: Halon Changeout 1-92-01-1945																																																																																																																						
MODELS OF SYSTEMS AFFECTED: UH-60L Black Hawk																																																																																																																						
DESCRIPTION / JUSTIFICATION: Procurement of halon violates the Montreal Protocol and violates the Clean Air Act. This modification will retrofit hand held aircraft fire extinguishers and the on board engine fire extinguishing system. The current halon extinguishers and systems deplete the ozone level and halon will be replaced with a new chemical agent. This mod will be applied to UH-60Ls.																																																																																																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																																						
PLANNED																																																																																																																						
ACCOMPLISHED																																																																																																																						
<div style="display: flex; justify-content: space-between;"> <div> Project Initiated First Kit Applied Last Kit Applied </div> <div> Sep 92 May 98 Sep 00 </div> </div>																																																																																																																						
Installation Schedule:																																																																																																																						
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">FY Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>															FY Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals																				
FY Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																		
Inputs																																																																																																																						
Outputs																																																																																																																						
Totals																																																																																																																						
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">FY Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th>To</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>															FY Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To	Inputs																			Outputs																			Totals																												
FY Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																																																																																																				
Inputs																																																																																																																						
Outputs																																																																																																																						
Totals																																																																																																																						
METHOD OF IMPLEMENTATION: OLR Teams																																																																																																																						
Contract Dates: FY 1997																																																																																																																						
Delivery Date: FY 1997																																																																																																																						
ADMINISTRATIVE LEADTIME: 5																																																																																																																						
PRODUCTION LEADTIME: 3																																																																																																																						
FY 1998 Feb 98																																																																																																																						
FY 1999 Feb 99																																																																																																																						
FY 2000 May 99																																																																																																																						

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): Halon Changeout 1-92-01-1945													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E													
PROCUREMENT													
Kit Quantity					180	4.2	150	3.6	115	2.8			445 10.6
Installation Kits													
Installation Kits, Nonrecurring		0.1											0.1
Equipment													
Equipment, Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits					90	0.4	90	0.4					180 0.8
FY 1998 Eqpt --180 Kits									40	0.2			150 0.7
FY 1999 Eqpt --150 Kits							110	0.5	115	0.6			115 0.6
FY 2000 Eqpt -- 115 kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Instalment					90	0.4	200	0.9	155	0.8			445 2.1
Total Procurement Cost		0.1				4.6		4.5		3.6			12.8

INDIVIDUAL MODIFICATION																																																																																																																			
										Date	February 1998																																																																																																								
MODIFICATION TITLE: Battery/Power Light Relocate 1-94-01-1953																																																																																																																			
MODELS OF SYSTEMS AFFECTED: UH-60 A/L Black Hawk																																																																																																																			
DESCRIPTION / JUSTIFICATION: Provide the fleet with a low cost, low maintenance, longer life, battery, which would replace the existing maintenance intensive Nickel Cadmium battery. Maintenance cost will be reduced and disposal cost minimized by providing a recyclable battery. The new battery will meet the EPA environmental health hazard restrictions.																																																																																																																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-around; width: 100%;"> <div> PLANNED Contract Awarded First Kit Installed Last Kit Installed </div> <div> ACCOMPLISHED Dec 98 Apr 00 Mar 03 </div> </div>																																																																																																																			
Quantity procured includes 5 kits to be installed in maintenance trainers by field personnel.																																																																																																																			
Installation Schedule:																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>150</td><td>150</td><td>150</td><td>150</td> <td>159</td><td>159</td><td>159</td><td>159</td> <td>159</td><td>159</td><td>159</td><td>159</td> <td>20</td><td>20</td><td>20</td><td>20</td> <td>120</td><td>120</td><td>120</td><td>120</td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals	150	150	150	150	159	159	159	159	159	159	159	159	20	20	20	20	120	120	120	120
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Inputs																																																																																																																			
Outputs																																																																																																																			
Totals	150	150	150	150	159	159	159	159	159	159	159	159	20	20	20	20	120	120	120	120																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>To Complete</th><th>To</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>150</td><td>150</td><td>150</td><td>150</td> <td>159</td><td>159</td><td>159</td><td>159</td> <td>159</td><td>159</td><td>159</td><td>159</td> <td>1448</td><td>1448</td><td>1448</td><td>1448</td> <td>1448</td><td>1448</td> </tr> </tbody> </table>												Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	To	Inputs																			Outputs																			Totals	150	150	150	150	159	159	159	159	159	159	159	159	1448	1448	1448	1448	1448	1448										
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	To																																																																																																	
Inputs																																																																																																																			
Outputs																																																																																																																			
Totals	150	150	150	150	159	159	159	159	159	159	159	159	1448	1448	1448	1448	1448	1448																																																																																																	
METHOD OF IMPLEMENTATION: OLR Teams																																																																																																																			
ADMINISTRATIVE LEADTIME: 10																																																																																																																			
PRODUCTION LEADTIME: 6																																																																																																																			
Contract Dates: FY 1997																																																																																																																			
Delivery Date: FY 1997																																																																																																																			

INDIVIDUAL MODIFICATION																			
Date																			
February 1998																			
MODIFICATION TITLE (Cont): Battery/Power Light Relocate 1-94-01-1953																			
FINANCIAL PLAN: (\$ in Millions)																			
FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
														</					

INDIVIDUAL MODIFICATION																																																																																																																	
								Date	February 1998																																																																																																								
MODIFICATION TITLE: NVG Lighting Lower Console 1-90-01-1933																																																																																																																	
MODELS OF SYSTEMS AFFECTED: UH-60 A/L Black Hawk																																																																																																																	
DESCRIPTION / JUSTIFICATION: <p>This is a safety related requirement resulting from incident report findings stipulating the lack of the lower console lighting as a present factor in the incident. This safety related improvement will improve cockpit lighting which will increase the capability of the night vision goggles and eliminate the pilot's/co-pilot's need to transition from goggles to no-goggles (heads down) in order to see and operate the radio control heads. Until this is accomplished, the radios and equipment in the lower console must remain unlighted.</p> <p>Existing cockpit lighting and relighted radio control panels will be upgraded to be in conformance with DOD Spec MIL-L-85762 and compatible with ANVIS-6 goggles. The proposed cockpit lighting upgrade will improve night operations capability.</p>																																																																																																																	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																																	
<div style="display: flex; justify-content: space-between;"> <div> PLANNED Jan 90 Mar 97 Jun 97 Feb 02 </div> <div> ACCOMPLISHED Jan 97 Mar 97 Aug 97 </div> </div>																																																																																																																	
Installation Schedule:																																																																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>50</td><td>50</td><td>50</td><td>50</td> <td></td><td></td><td></td><td></td> <td>115</td><td>115</td><td>115</td><td>120</td> <td>120</td><td>120</td><td>120</td><td>110</td> <td>100</td><td>75</td><td>75</td><td>75</td> </tr> <tr> <td>Outputs</td> <td>50</td><td>50</td><td>50</td><td>50</td> <td></td><td></td><td></td><td></td> <td>115</td><td>115</td><td>115</td><td>120</td> <td>120</td><td>120</td><td>120</td><td>110</td> <td>100</td><td>75</td><td>75</td><td>75</td> </tr> <tr> <td>Totals</td> <td>200</td><td>200</td><td>200</td><td>200</td> <td></td><td></td><td></td><td></td> <td>450</td><td>450</td><td>450</td><td>480</td> <td>480</td><td>480</td><td>480</td><td>440</td> <td>400</td><td>300</td><td>300</td><td>300</td> </tr> </tbody> </table>										Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	50	50	50	50					115	115	115	120	120	120	120	110	100	75	75	75	Outputs	50	50	50	50					115	115	115	120	120	120	120	110	100	75	75	75	Totals	200	200	200	200					450	450	450	480	480	480	480	440	400	300	300	300
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																													
Inputs	50	50	50	50					115	115	115	120	120	120	120	110	100	75	75	75																																																																																													
Outputs	50	50	50	50					115	115	115	120	120	120	120	110	100	75	75	75																																																																																													
Totals	200	200	200	200					450	450	450	480	480	480	480	440	400	300	300	300																																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>To Complete</th><th>To</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>75</td><td>75</td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>1450</td> </tr> <tr> <td>Outputs</td> <td>75</td><td>75</td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>1450</td> </tr> </tbody> </table>										Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	To	Inputs	75	75																1450	Outputs	75	75																1450																													
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	To																																																																																															
Inputs	75	75																1450																																																																																															
Outputs	75	75																1450																																																																																															
METHOD OF IMPLEMENTATION: OLR Teams																																																																																																																	
Contract Dates: FY 1997																																																																																																																	
Delivery Date: FY 1997																																																																																																																	
ADMINISTRATIVE LEADTIME: 2																																																																																																																	
PRODUCTION LEADTIME: 3																																																																																																																	
FY 1998 Nov 98 FY 1999 Feb 99																																																																																																																	

INDIVIDUAL MODIFICATION																		
NVG Lighting Lower Console 1-90-01-1933																		
MODIFICATION TITLE (Cont):																		
FINANCIAL PLAN: (\$ in Millions)																		
FY 1996 and Prior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
	200	1.3			550	4.0	500	3.6	200	1.5							1450	10.4
RDT&E																		
PROCUREMENT																		
Kit Quantity																		
Installation Kits																		
Installation Kits, Nonrecurring																		
Equipment																		
Equipment, Nonrecurring																		
Engineering Change Orders																		
Data																		
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
Installation of Hardware																		
FY 1996 & Prior Eqpt -- Kits			200	0.6													200	0.6
FY 1997 Eqpt -- Kits																		
FY 1998 Eqpt -- Kits																		
FY 1999 Eqpt -- Kits					350	1.0	200	0.6									550	1.6
FY 2000 Eqpt -- kits							250	0.7	250	0.7							500	1.4
FY 2001 Eqpt -- kits									50	0.2	150	0.6					200	0.8
FY 2002 Eqpt -- kits																		
FY 2003 Eqpt -- kits																		
TC Equip-Kits																		
Total Installation			200	0.6			450	1.3	300	0.9	150	0.6					1450	4.4
Total Procurement Cost		1.3		0.6		5.0	4.9			2.4	0.6							14.8

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:		Date: February 1998										
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft		P-1 Item Nomenclature: KIOWA WARRIOR (A22200)										
Program Elements for Code B Items:		Other Related Program Elements:										
		Code:	A	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	867.6			197.1	57.1	40.4	29.7	14.7	74.0	41.3	262.8	2011.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	867.6			197.1	57.1	40.4	29.7	14.7	74.0	41.3	262.8	2011.6
Initial Spares												
Total Proc Cost	867.6			197.1	57.1	40.4	29.7	14.7	74.0	41.3	262.8	2011.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The OH-58D Kiowa Warrior is a two-seat, single-engine, light helicopter with four main rotor blades and a low-light television thermal imaging system and laser range finder/designator incorporated into a Mast Mounted Sight situated above the main rotor system. The aircraft is designed to operate autonomously at standoff ranges providing armed reconnaissance, command and control, and target acquisition and designation under day, night, and adverse weather conditions. The Kiowa Warrior can laser designate for precision guided munitions, Apache helicopters, and other airborne weapons platforms. Using an airborne target handover system, the Kiowa Warrior is capable of providing adjustment of conventional artillery as well as handing over targets to the Apache and other weapons platforms. Efforts commenced in FY 91 to retrofit fielded aircraft with numerous improvements to include incorporation of both Air-to-Air Stinger and Air-to-Ground weapons. Provisions for in-line production incorporation began with the last six aircraft of the FY 89 procurement. In addition, Multi-Purpose Light Helicopter (MPLH) kits have been developed to provide a rapid deployment capability (15 minute flyaway from C-130 offload), 2000-pound external cargo hook capability, limited troop transport (six personnel), and emergency casualty evacuation (two litters). The upgraded Control Display System processor modification replaces three processors with two Joint Integrated Avionics Working Group standard 80960 processors. Hand-held Halon fire extinguishers are being replaced in accordance with the Clean Air Act of 1990, which prohibits the use of ozone-depleting chemicals. The System Safety Enhancement Program (SSEP) was initiated in FY 96 to incorporate R3 engines, crashworthy crew seats, a supplemental restraint system, digitization, and improved weapons interface. The SSEP will improve recognition and identification of emergency situations, reduce pilot workload during emergency maneuvers, provide significant improvements to the crashworthiness of the airframe thus improving crew survivability, improve engine reliability with the intent to reduce the probability of engine failure and exposure to emergency autorotations and add digitization capabilities. SSEP efforts, to include the R3 Engine, have been incorporated into the later lots under the Remanufacture and the Retrofit lines; and fielded aircraft will be modified via both contractor mod line and field modification.

Exhibit P-40C Budget Item Justification Sheet			Date	February 1998
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature		
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft		KIOWA WARRIOR (AZ2200)		
Program Elements for Code B Items	Code	Other Related Program Elements		
<p>JUSTIFICATION: The FY 99 program continues the SSEP efforts, funds the fielding of Kiowa Warrior aircraft procured with previous years' funding, procures additional quantities of Crew Station Mission Equipment Trainers (CSMET), and installs replacement fire extinguishers. The Army's most critical aviation deficiency is the lack of a night, armed reconnaissance capability. The FY 99 acquisition efforts are required in order to allow the Kiowa Warrior to serve as the Army's night, armed reconnaissance aviation capability until RAH-66 fielding begins. Kiowa Warrior will continue to complement the Comanche throughout its projected 20-year life span, with gradual displacement to lower-priority, active and reserve component units as Comanches are fielded in quantities. The FY 00 program continues System Safety Enhancement Program, CSMET, and Halon Fire Extinguisher efforts.</p>				

Exhibit P-40M Budget Item Justification Sheet										
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature		Date						
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft		KIOWA WARRIOR (A22200)		February 1998						
Program Elements for Code B Items		Code		Other Related Program Elements						
Description		Fiscal Years								
OSIP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Total
Kiowa Warrior - Remanufacture										
TBD 1	Operational	808.7	109.1	9.8	0.1	0.0	0.0	0.0	0.0	927.7
Kiowa Warrior - Retrofit										
1-88-01-2103	Operational	417.0	25.9	9.9	0.0	0.0	0.0	0.0	0.0	452.8
Halon Fire Extinguisher										
TBD 2	Congressional	1.3	0.0	0.5	0.5	0.4	0.0	0.0	0.0	2.7
Crew Station Mission Equipment Trainer (CSMET)										
TBD 3	Training	0.0	0.0	3.2	7.4	4.2	2.6	0.0	0.0	17.4
R3 Engines - SSEP										
1-91-01-2113	Safety	52.9	51.0	18.7	21.9	14.5	1.4	23.7	10.3	206.2
Improved Master Controller Processor Unit - SSEP										
1-93-01-2100	Operational	50.9	5.2	10.3	7.2	5.2	4.6	26.6	27.0	153.1
Crew Seats - Sys Safety Enhancement										
TBD 4	Safety	1.1	5.9	4.7	2.1	3.0	2.7	14.9	1.6	36.0
Supplemental Restraint System - Sys Safety Enhancement										
TBD 5	Safety	1.0	0.0	0.0	1.2	2.4	3.4	8.8	2.4	19.2
Totals										
		1,332.9	197.1	57.1	40.4	29.7	14.7	74.0	41.3	1,815.1

INDIVIDUAL MODIFICATION												Date	February 1998	
MODIFICATION TITLE: Kiowa Warrior - Remanufacture TBD 1														
MODELS OF SYSTEMS AFFECTED: OH-58A														
DESCRIPTION / JUSTIFICATION: The OH-58D Kiowa Warrior is a versatile, lethal, deployable aircraft capable of seeing, fighting and surviving in all types of terrain and battlefield environments, day or night, with adverse visibility. An OH-58A airframe is modified to accept an improved rotor-and-drive system, a fully integrated night-vision-compatible cockpit, a complete airborne target handover system, a precision navigation capability, and an above-the-rotor Mast Mounted Sight. Included are Air-to-Air Stinger, Air-to-Ground weapons and Multi Purpose Light Helicopter (MPLH) kits. This fully armed scout aircraft will be used in armed air cavalry reconnaissance and light attack helicopter units. Some System Safety Enhancement equipment, to include R3 Engines, is incorporated in later production lots.														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: All development milestones complete.														
*Installation Data not applicable. Modification of the OH-58D aircraft to the OH-58D Kiowa Warrior will be accomplished by Bell Helicopter Textron at their facilities.														
Installation Schedule:														
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001				
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4	
Totals														
Inputs														
Outputs														
		FY 2002		FY 2003		FY 2004		FY 2005		To		Totals		
1		2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs														
Outputs														
METHOD OF IMPLEMENTATION: Production Line ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 18 Months														
Contract Dates: FY 1997 May 97 FY 1998 FY 1999														
Delivery Date: FY 1997 Nov 98 FY 1998 FY 1999														

INDIVIDUAL MODIFICATION																				
Date February 1998																				
Kiowa Warrior - Remanufacture TBD 1																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	119	572.9	13	73.4															132	646.3
Hardware Recurring																				
ECO's		71.0		3.4		0.8														75.2
Data		17.8		1.1																18.9
PGSE		7.9		0.6																8.5
Other		102.0		22.6		4.2														128.8
Project Mgt/Administration		24.9		5.6		3.1														33.6
Fielding				1.2		1.6		0.1												2.9
MPLH		12.2		1.2		0.1														13.5
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment		808.7		109.1		9.8		0.1												927.7
Total Procurement Cost																				

INDIVIDUAL MODIFICATION																																																																																																																			
										Date	February 1998																																																																																																								
MODIFICATION TITLE: Kiowa Warrior - Retrofit 1-88-01-2103																																																																																																																			
MODELS OF SYSTEMS AFFECTED: OH-58D AHIP																																																																																																																			
DESCRIPTION / JUSTIFICATION: Fielded OH-58D aircraft are retrofitted to the current production configuration of the fully armed Kiowa Warrior. That configuration includes Air-to-Air Stinger (ATAS), Air-to-Ground (ATG) weapons (Hellfire, 2.75 inch rockets, and .50 caliber machine gun), and Multi-Purpose Light Helicopter (MPLH) kits. The ATAS provides a mid-range defensive and offensive air-to-air capability against threat aircraft. The ATG weapons provide defensive and suppressive fire and service high-priority targets. The MPLH kits (designed to alleviate a major deficiency in XVIII Airborne Corps) provide rapid deployment capability, a 2000-pound external cargo hook, limited troop transport, and emergency casualty evacuation. The OH-58D Kiowa Warrior will be fielded in air cavalry reconnaissance and light attack units. This aircraft provides the Army with a versatile, lethal, deployable aircraft capable of seeing, fighting, and surviving in all types of terrain and battlefield environments, day or night, with adverse visibility. Some System Safety Enhancement equipment, to include R3 Engines, is incorporated into the later retrofit lots.																																																																																																																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> PLANNED Aug 89 Apr 91 May 91 May 93 Jun 93 </td> <td style="width: 50%; vertical-align: top;"> ACCOMPLISHED Aug 89 Apr 91 May 91 May 93 Jun 93 </td> </tr> </table>												PLANNED Aug 89 Apr 91 May 91 May 93 Jun 93	ACCOMPLISHED Aug 89 Apr 91 May 91 May 93 Jun 93																																																																																																						
PLANNED Aug 89 Apr 91 May 91 May 93 Jun 93	ACCOMPLISHED Aug 89 Apr 91 May 91 May 93 Jun 93																																																																																																																		
*Installation Data not applicable. Modification of the OH-58D aircraft to the Kiowa Warrior Armed will be accomplished by Bell Helicopter Textron at their facilities.																																																																																																																			
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																				
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																															
Inputs																																																																																																																			
Outputs																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th></th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete		Inputs																			Outputs																																															
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																																																		
Inputs																																																																																																																			
Outputs																																																																																																																			
METHOD OF IMPLEMENTATION: Production Line ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 12 Months																																																																																																																			
Contract Dates: FY 1997 May 97 FY 1998 FY 1999																																																																																																																			
Delivery Date: FY 1997 May 98 FY 1998 FY 1999																																																																																																																			

INDIVIDUAL MODIFICATION																		
Kiowa Warrior - Retrofit 1-88-01-2103																		
MODIFICATION TITLE (Cont):																		
FINANCIAL PLAN: (\$ in Millions)																		
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																		
PROCUREMENT																		
Kit Quantity	175	320.5	10	19.7													185	340.2
Hardware Recurring		14.7				0.2												14.9
ECO's		0.5																0.5
Data		4.9																5.1
PGSE		47.1				0.2												54.1
Other		21.8				3.0												26.9
Project Mgt/Administration		7.5				1.8												11.1
Fielding						1.2												
Installation of Hardware																		
FY 1996 & Prior Eqpt -- Kits																		
FY 1997 Eqpt -- Kits																		
FY 1998 Eqpt -- Kits																		
FY 1999 Eqpt -- Kits																		
FY 2000 Eqpt -- kits																		
FY 2001 Eqpt -- kits																		
FY 2002 Eqpt -- kits																		
FY 2003 Eqpt -- kits																		
TC Equip-Kits																		
Total Installation		417.0		25.9		9.9												452.8
Total Procurement Cost																		

INDIVIDUAL MODIFICATION																
										Date						
										February 1998						
MODIFICATION TITLE: Halon Fire Extinguisher TBD 2																
MODELS OF SYSTEMS AFFECTED: OH-58D Kiowa Warrior																
DESCRIPTION / JUSTIFICATION:																
<p>The U.S. Army is replacing its stock of hand-held Halon fire extinguishers with CO2 extinguishers in accordance with the Clean Air Act of 1990. This law prohibits the use of ozone depleting chemicals (ODC).</p> <p>There is no longer any small hand-held Halon 1301 fire extinguishers in stock at Defense Logistics Agency. Consequently, some aircraft could be grounded because of a lack of a CO2 hand-held fire extinguisher. CO2 extinguishers are provided for the Kiowa Warrior airframe by the Army, at no cost to the Program. Funding is for engineering and installation.</p>																
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																
Installation Schedule:																
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001						
Pr Yr	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																
Inputs																
Outputs																
		FY 2002		FY 2003		FY 2004		FY 2005		Totals						
1	2	3	4	1	2	3	4	1	2	3	4	Complete				
Inputs																
Outputs																
												390				
												390				
METHOD OF IMPLEMENTATION: Line/Field Retrofit																
Contract Dates: FY 1997																
Delivery Date: FY 1997																
ADMINISTRATIVE LEADTIME: Jun 98																
PRODUCTION LEADTIME: Dec 98																
FY 1998																
FY 1999																
FY 1999																
Jan 99																

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): Halon Fire Extinguisher TBD 2													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity	390												390
Installation Kits													
Installation Kits, Nonrecurring Equipment			26	0.1	187	0.4	177	0.3					390
Equipment, Nonrecurring													0.8
Engineering Change Orders													1.3
Data													0.3
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- 26 Kits			26	0.1									26
FY 1999 Eqpt -- 187 Kits					187	0.1	177	0.1					187
FY 2000 Eqpt -- 177 kits													177
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installation			26	0.1	187	0.1	177	0.1					390
Total Procurement Cost				0.5		0.5		0.4					2.7

INDIVIDUAL MODIFICATION												Date	February 1998																																																																																				
MODIFICATION TITLE: Crew Station Mission Equipment Trainer (CSMET) TBD 3																																																																																																	
MODELS OF SYSTEMS AFFECTED: OH-58D Kiowa Warrior																																																																																																	
DESCRIPTION / JUSTIFICATION: The Crew Station Mission Equipment Trainer (CSMET) is a unit-level training device that supports training for the OH-58D Kiowa Warrior flight crews. The CSMET shall support refresher and sustainment training of those skills required to initialize, operate, and employ the weapon system, aircraft survivability equipment, Automatic Target Handover System, communication and navigation equipment, Mast Mounted Sight cockpit controls, data transfer system, Aviator Night Vision Imaging System (ANVIS) display, and airborne video tape recorder. The CSMET will network with other devices for collective training. Currently, there are no Training Devices, Simulators or Simulations (TDSS) available to fielded Kiowa Warrior units. Therefore, the aircraft itself provides the only primary sustainment training device.																																																																																																	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																	
<u>PLANNED</u>										<u>ACCOMPLISHED</u>																																																																																							
Development/Design Contract Award Development/Design Contract Definition Prototype Contract Award										May 96 Sep 96 Nov 96																																																																																							
CSMET is a training device; installation is not applicable.																																																																																																	
Installation Schedule:																																																																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </table>														Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																				
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																													
Inputs																																																																																																	
Outputs																																																																																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">Totals</th> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td colspan="4">Complete</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td colspan="4"></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td colspan="4"></td> </tr> </table>														Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals				Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete				Inputs																					Outputs																				
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																																
Inputs																																																																																																	
Outputs																																																																																																	
METHOD OF IMPLEMENTATION: Stand Alone Device ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months																																																																																																	
Contract Dates: FY 1997 FY 1998 FY 1999 Jan 99																																																																																																	
Delivery Date: FY 1997 FY 1998 FY 1999 Jan 00																																																																																																	

INDIVIDUAL MODIFICATION										Date	February 1998																																																																														
MODIFICATION TITLE: R3 Engines - SSEP 1-91-01-2113																																																																																									
MODELS OF SYSTEMS AFFECTED: OH-58D Kiowa Warrior																																																																																									
DESCRIPTION / JUSTIFICATION:																																																																																									
<p>As part of the System Safety Enhancement Program (SSEP), the T-703 engine is improved to provide increased reliability, control responsiveness and life. This R3 engine will overcome the present rotor droop anomaly by providing faster response time to power demands and will increase the overall engine efficiency and reliability. This effort will provide reduced autorotational touchdown speed and will trim rotor speed to 100% in autorotation. With Full Authority Digital Electronic Control (FADEC), the engine will anticipate power needs and limit temperature spikes. New gas path components are more efficient and run cooler, thus delivering 18% more power in hot-day conditions. Additional R3 major improvements are increased surge margin, increased transient performance, surge avoidance capability, hot-start protection, and flame-out detection/relight capability. This upgrade increases time-between-overhaul (TBO) from 1000 hours to 2500 hours with very high reliability and reduced maintenance cost. This effort is a safety portion of the overall System Safety Enhancement Program (SSEP).</p>																																																																																									
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																									
<table border="0" style="width:100%;"> <tr> <td style="width:50%;">RAMEP (R2) Contract Award - NRE</td> <td style="width:50%; text-align: right;">PLANNED</td> <td style="width:50%; text-align: right;">ACCOMPLISHED</td> </tr> <tr> <td>Modification Revised:</td> <td style="text-align: right;">Apr 95</td> <td style="text-align: right;">Apr 95</td> </tr> <tr> <td>RAMEP (R3) with FADEC Development Contract Definition</td> <td style="text-align: right;">Jun 96</td> <td style="text-align: right;">Jun 96</td> </tr> </table>										RAMEP (R2) Contract Award - NRE	PLANNED	ACCOMPLISHED	Modification Revised:	Apr 95	Apr 95	RAMEP (R3) with FADEC Development Contract Definition	Jun 96	Jun 96																																																																							
RAMEP (R2) Contract Award - NRE	PLANNED	ACCOMPLISHED																																																																																							
Modification Revised:	Apr 95	Apr 95																																																																																							
RAMEP (R3) with FADEC Development Contract Definition	Jun 96	Jun 96																																																																																							
NOTE: Prior Year quantities installed in Remanufacture and Retrofit modification lines and in Task Force XXI aircraft.																																																																																									
Installation Schedule:																																																																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 1997</th> <th colspan="3">FY 1998</th> <th colspan="3">FY 1999</th> <th colspan="3">FY 2000</th> <th colspan="3">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th><th>3</th> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td> <td>3</td><td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td><td>3</td> </tr> <tr> <td>Inputs</td> <td>86</td><td></td><td></td> <td>39</td><td>39</td><td>51</td> <td>13</td><td>15</td><td>15</td><td>15</td><td>9</td> <td>9</td><td>9</td><td>9</td><td></td> </tr> <tr> <td>Outputs</td> <td>86</td><td></td><td></td> <td></td><td>7</td><td>12</td> <td>12</td><td>12</td><td>12</td><td>5</td><td>4</td> <td>5</td><td>4</td><td>3</td><td>3</td> </tr> </table>											Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	Inputs	86			39	39	51	13	15	15	15	9	9	9	9		Outputs	86				7	12	12	12	12	5	4	5	4	3	3
Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																												
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3																																																																										
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3																																																																										
Inputs	86			39	39	51	13	15	15	15	9	9	9	9																																																																											
Outputs	86				7	12	12	12	12	5	4	5	4	3	3																																																																										
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 2002</th> <th colspan="3">FY 2003</th> <th colspan="3">FY 2004</th> <th colspan="3">FY 2005</th> <th colspan="3">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th><th>To Complete</th><th></th> </tr> <tr> <td>Inputs</td> <td>9</td><td>9</td><td>9</td> <td>9</td><td>9</td><td>9</td> <td>9</td><td>18</td><td>18</td><td>18</td><td>18</td> <td></td><td></td><td>424</td> </tr> <tr> <td>Outputs</td> <td>3</td><td>9</td><td>9</td> <td>9</td><td>18</td><td>18</td> <td>18</td><td>18</td><td></td><td></td><td></td> <td></td><td>39</td><td>311</td> </tr> </table>											Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals			1	2	3	4	1	2	3	4	1	2	3	4	To Complete		Inputs	9	9	9	9	9	9	9	18	18	18	18			424	Outputs	3	9	9	9	18	18	18	18					39	311																			
Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals																																																																												
	1	2	3	4	1	2	3	4	1	2	3	4	To Complete																																																																												
Inputs	9	9	9	9	9	9	9	18	18	18	18			424																																																																											
Outputs	3	9	9	9	18	18	18	18					39	311																																																																											
METHOD OF IMPLEMENTATION: Contractor Line																																																																																									
Contract Dates: FY 1997 Sep 97 FY 1998 Mar 98 FY 1999 Mar 99																																																																																									
Delivery Date: FY 1997 Sep 98 FY 1998 Mar 99 FY 1999 Mar 00																																																																																									
PRODUCTION LEADTIME: 12 Months																																																																																									

INDIVIDUAL MODIFICATION													
R3 Engines - SSEP 1-91-01-2113													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity	86	2.8	156		50		60		36				424
Installation Kits		2.7			28	1.7	20	1.2	18	1.1	12	0.7	311
Installation Kits, Nonrecurring													22.7
Equipment		37.9				15.3	19.5						2.7
Equipment, Nonrecurring		8.5							12.3				146.2
Engineering Change Orders		1.0											9.8
Data													1.0
Training Equipment													
Support Equipment													0.4
Other													1.7
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- 28 Kits					28	1.7	20	1.2					28
FY 1999 Eqpt -- 20 Kits													20
FY 2000 Eqpt -- 18 kits									18	1.1	12	0.7	18
FY 2001 Eqpt -- 12 Kits													12
FY 2002 Eqpt -- 72 kits													72
FY 2003 Eqpt -- 72 kits													72
TC Equip-89 Kits													89
Total Installation					28	1.7	20	1.2	18	1.1	12	0.7	311
Total Procurement Cost		52.9		51.0		18.7		21.9		14.5		1.4	206.2

INDIVIDUAL MODIFICATION																																																																																														
										Date	February 1998																																																																																			
MODIFICATION TITLE: Improved Master Controller Processor Unit - SSEP 1-93-01-2100																																																																																														
MODELS OF SYSTEMS AFFECTED: OH-58D																																																																																														
DESCRIPTION / JUSTIFICATION: <p>The existing Master Controller Processor Unit (MCPU), which serves as mission computer and buss controller, is limited in memory, throughput, and avionics buss message traffic capability. The design is based on 1970's technology and parts obsolescence is an increasing problem. As part of SSEP, the upgraded CDS MCPU provides the basic building block for integration of the existing Mission Equipment Package and future growth capability for horizontal integration and digitization of the battlefield to aid situational awareness for the battle commander. This effort will replace three existing processors with two state-of-the-art processors providing a 100% growth capability for memory and throughput while reducing the aircraft empty weight and operating and support costs. Growth capability is necessary for technical insertions such as Improved Data Modem, Battlefield Combat Identification System, Radio Frequency Interferometer (RFI), Improved Navigation System/Global Positioning System, Digital Map, etc. Task Force XXI software changes will be incorporated in the improved MCPU.</p>																																																																																														
<table border="0" style="width: 100%;"> <tr> <td colspan="4" style="text-align: center;">DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</td> <td colspan="4" style="text-align: center;">PLANNED</td> <td colspan="4" style="text-align: center;">ACCOMPLISHED</td> </tr> <tr> <td colspan="4" style="text-align: center;">B Kit Development Contract Award</td> <td colspan="4" style="text-align: center;">Nov 93</td> <td colspan="4" style="text-align: center;">Nov 93</td> </tr> <tr> <td colspan="4" style="text-align: center;">A Kit Development Contract Award</td> <td colspan="4" style="text-align: center;">Sep 94</td> <td colspan="4" style="text-align: center;">Sep 94</td> </tr> <tr> <td colspan="4" style="text-align: center;">IMCPU Qualification Contract Award</td> <td colspan="4" style="text-align: center;">Sep 97</td> <td colspan="4" style="text-align: center;">Sep 97</td> </tr> </table>												DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:				PLANNED				ACCOMPLISHED				B Kit Development Contract Award				Nov 93				Nov 93				A Kit Development Contract Award				Sep 94				Sep 94				IMCPU Qualification Contract Award				Sep 97				Sep 97																																						
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:				PLANNED				ACCOMPLISHED																																																																																						
B Kit Development Contract Award				Nov 93				Nov 93																																																																																						
A Kit Development Contract Award				Sep 94				Sep 94																																																																																						
IMCPU Qualification Contract Award				Sep 97				Sep 97																																																																																						
77 kits installed on Remanufacture/Retrofit production lines; installation quantities and dollars reflected on those respective P-3a forms.																																																																																														
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 1997</th> <th colspan="3">FY 1998</th> <th colspan="3">FY 1999</th> <th colspan="3">FY 2000</th> <th colspan="3">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td>125</td><td>4</td><td>6</td> <td>3</td><td>4</td><td>3</td><td>6</td> <td>6</td><td>4</td><td>4</td><td>4</td> <td>4</td><td>4</td><td>4</td><td>4</td><td>20</td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>7</td><td>7</td><td>7</td><td>5</td> <td>5</td><td>5</td><td>4</td><td>5</td><td>5</td> </tr> </tbody> </table>												Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	125	4	6	3	4	3	6	6	4	4	4	4	4	4	4	20	Outputs								7	7	7	5	5	5	4	5	5
Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																																	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																														
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																														
Inputs	125	4	6	3	4	3	6	6	4	4	4	4	4	4	4	20																																																																														
Outputs								7	7	7	5	5	5	4	5	5																																																																														
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">To</th> <th colspan="3">FY 2002</th> <th colspan="3">FY 2003</th> <th colspan="3">FY 2004</th> <th colspan="3">FY 2005</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td><td>1</td><td>2</td><td>3</td> <td>4</td> </tr> <tr> <td>Outputs</td> <td>20</td><td>20</td><td>20</td> <td>18</td><td>18</td><td>18</td><td>18</td> <td>18</td><td>18</td><td>18</td><td>18</td> <td>18</td> </tr> <tr> <td>Totals</td> <td>4</td><td>3</td><td>3</td> <td>3</td><td>18</td><td>18</td><td>18</td> <td>18</td><td>18</td><td>18</td><td>18</td> <td>89</td> </tr> </tbody> </table>												To	FY 2002			FY 2003			FY 2004			FY 2005			Totals	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	1	2	3	4	1	2	3	4	1	2	3	4	Outputs	20	20	20	18	18	18	18	18	18	18	18	18	Totals	4	3	3	3	18	18	18	18	18	18	18	89																		
To	FY 2002			FY 2003			FY 2004			FY 2005			Totals																																																																																	
	1	2	3	4	1	2	3	4	1	2	3	4																																																																																		
Inputs	1	2	3	4	1	2	3	4	1	2	3	4																																																																																		
Outputs	20	20	20	18	18	18	18	18	18	18	18	18																																																																																		
Totals	4	3	3	3	18	18	18	18	18	18	18	89																																																																																		
METHOD OF IMPLEMENTATION: Contract Dates: FY 1997 May 97 FY 1998 Mar 98 FY 1999 Jan 99 FY 2000 Jan 00 Delivery Date: FY 1997 May 98 FY 1998 Mar 99 FY 1999 Jan 00 FY 2000 Jan 00																																																																																														

INDIVIDUAL MODIFICATION																							
Date February 1998																							
Improved Master Controller Processor Unit - SSEP 1-93-01-2100																							
MODIFICATION TITLE (Cont):																							
FINANCIAL PLAN: (\$ in Millions)																							
FY 1996 and Prior	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL						
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$					
119		13		1.2	13		0.7		24		0.5	15		0.3	80		78		31		388		9.9
									20			12		0.5	72		2.0		89		283		10.9
																							93.2
																							12.0
																							5.0

Crew Seats - Sys Safety Enhancement TBD 4

MODIFICATION TITLE (Cont):

FINANCIAL PLAN: (\$ in Millions)

	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	123				76		26		30		20		113						388	
Installation Kits					28	1.0	20	0.8	38	1.4	42	1.6	192	7.6	38	1.5			358	13.9
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Beginning in FY 00, kits will be installed simultaneously on SSEP production line and via field retrofit. Thirty seats will be installed on the Kiowa Warrior Remanufacture and Retrofit production lines.																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits					28	0.1	20	0.1											28	0.1
FY 1998 Eqpt -- 28 Kits																			20	0.1
FY 1999 Eqpt -- 20 Kits																			38	0.1
FY 2000 Eqpt -- 38 Kits									38	0.1									42	0.1
FY 2001 Eqpt -- 42 Kits											42	0.1							192	1.5
FY 2002 Eqpt -- 192 kits													192	1.5	38	0.1			38	0.1
FY 2003 Eqpt -- 38 kits																				
TC Equip-Kits																				
Total Installment					28	0.1	20	0.1	38	0.1	42	0.1	192	1.5	38	0.1			358	2.0
Total Procurement Cost		1.1		5.9		4.7	2.1	2.1	3.0			2.7	14.9			1.6				36.0

INDIVIDUAL MODIFICATION																																																																									
										Date	February 1998																																																														
MODIFICATION TITLE: Supplemental Restraint System - Sys Safety Enhancement TBD 5																																																																									
MODELS OF SYSTEMS AFFECTED: OH-58D Kiowa Warrior																																																																									
DESCRIPTION / JUSTIFICATION: As part of the System Safety Enhancement Program, supplemental restraints are required to protect the crew in all modes of otherwise survivable accidents. Air bags will be utilized in conjunction with crashworthy crew seats to provide reasonable crew protection in all modes of flight given the mission of the aircraft.																																																																									
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-between; width: 100%;"> <div> FY 96 Contract Award </div> <div> PLANNED Jul 96 </div> <div> ACCOMPLISHED Jul 96 </div> </div>																																																																									
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="2">FY 1997</th> <th colspan="2">FY 1998</th> <th colspan="2">FY 1999</th> <th colspan="2">FY 2000</th> <th colspan="2">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th><th>1</th><th>2</th><th>3</th><th>4</th><th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		1	2	3	4	1	2	3	4	1	2	3	4	Totals	1	2	3	4	1	2	3	4	1	2	3	4	Inputs													Outputs												
Pr Yr	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001																																																																
	1	2	3	4	1	2	3	4	1	2	3	4																																																													
Totals	1	2	3	4	1	2	3	4	1	2	3	4																																																													
Inputs																																																																									
Outputs																																																																									
<table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="2">FY 2002</th> <th colspan="2">FY 2003</th> <th colspan="2">FY 2004</th> <th colspan="2">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th><th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th>To</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td>22</td><td>46</td><td>47</td><td>47</td><td>6</td><td>6</td><td></td><td></td> <td></td><td></td><td></td><td>388</td> </tr> <tr> <td>Outputs</td> <td>10</td><td>12</td><td>10</td><td>48</td><td>48</td><td>48</td><td>24</td><td>24</td> <td>24</td><td></td><td></td><td>388</td> </tr> </tbody> </table>												Pr Yr	FY 2002		FY 2003		FY 2004		FY 2005		Totals		1	2	3	4	1	2	3	4	Complete	To	Totals	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	22	46	47	47	6	6						388	Outputs	10	12	10	48	48	48	24	24	24			388		
Pr Yr	FY 2002		FY 2003		FY 2004		FY 2005		Totals																																																																
	1	2	3	4	1	2	3	4	Complete	To																																																															
Totals	1	2	3	4	1	2	3	4	1	2	3	4																																																													
Inputs	22	46	47	47	6	6						388																																																													
Outputs	10	12	10	48	48	48	24	24	24			388																																																													
METHOD OF IMPLEMENTATION: <table style="width: 100%;"> <tr> <td style="width: 33%;">FY 1997</td> <td style="width: 33%;">FY 1998</td> <td style="width: 33%;">FY 1999</td> </tr> <tr> <td style="text-align: center;">FY 1997</td> <td style="text-align: center;">FY 1998</td> <td style="text-align: center;">FY 1999</td> </tr> </table>												FY 1997	FY 1998	FY 1999	FY 1997	FY 1998	FY 1999																																																								
FY 1997	FY 1998	FY 1999																																																																							
FY 1997	FY 1998	FY 1999																																																																							
CONTRACT DATES: <table style="width: 100%;"> <tr> <td style="width: 33%;">FY 1997</td> <td style="width: 33%;">FY 1998</td> <td style="width: 33%;">FY 1999</td> </tr> <tr> <td style="text-align: center;">FY 1997</td> <td style="text-align: center;">FY 1998</td> <td style="text-align: center;">FY 1999</td> </tr> </table>												FY 1997	FY 1998	FY 1999	FY 1997	FY 1998	FY 1999																																																								
FY 1997	FY 1998	FY 1999																																																																							
FY 1997	FY 1998	FY 1999																																																																							
DELIVERY DATE: <table style="width: 100%;"> <tr> <td style="width: 33%;">FY 1997</td> <td style="width: 33%;">FY 1998</td> <td style="width: 33%;">FY 1999</td> </tr> <tr> <td style="text-align: center;">FY 1997</td> <td style="text-align: center;">FY 1998</td> <td style="text-align: center;">FY 1999</td> </tr> </table>												FY 1997	FY 1998	FY 1999	FY 1997	FY 1998	FY 1999																																																								
FY 1997	FY 1998	FY 1999																																																																							
FY 1997	FY 1998	FY 1999																																																																							
PRODUCTION LEADTIME: 6 Months																																																																									

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												P-1 Item Nomenclature:
Program Elements for Code B Items:												EH-60 QUICKFIX MODS (AB3000)
Code:												Other Related Program Elements:
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	6.8	39.4	36.9	13.8	43.6	3.0	54.0	66.0	74.9	82.4	0.0	420.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	6.8	39.4	36.9	13.8	43.6	3.0	54.0	66.0	74.9	82.4		420.8
Initial Spares	71.1	0.1		2.3		0.8	1.2	1.2	5.3	6.6		88.6
Total Proc Cost	77.9	39.5	36.9	16.1	43.6	3.8	55.2	67.2	80.2	89.0	0.0	509.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: QUICKFIX, EH-60A, is a tactical helicopter communications intercept, direction finding and jamming system. QUICKFIX consists of AN/ALQ-151(V)2 intercept and direction finding mission equipment, an AN/TLO-17A communications jammer and airborne self-protection equipment mounted in a BLACKHAWK helicopter. Four systems are currently in service with every active Army Division and Armored Cavalry Regiment (ACR). The system is used to search for, intercept, record, locate, report on and jam radio signals in the high frequency/very high frequency (HF/VHF) ranges. QUICKFIX systems interoperate with each other and the ground based TRAILBLAZER and TEAMMATE systems in a netted configuration for direction finding purposes. The EH-60 QUICKFIX MODS line pays for required materiel changes to these fielded QUICKFIX systems.

Advanced QUICKFIX (AQF) is an absolute "win the battlefield information war" system. AQF, EH-60L, is a materiel change to the existing helicopter QUICKFIX system. The system provides Commanders of Division and ACRs with an organic capability to listen to, precisely locate for hard kill or order-of-battle resolution, or render ineffective through electronic attack threat conventional and Low Probability of Intercept (LPI) command and control and fire control communications nets. AQF will identify and precisely locate opposition counter/mortar and counter/battery ground surveillance radar emissions. The system is specifically designed to ensure transportability, prime mover maintainability, and mobility equal to, or greater than that of the supported divisions and regiments, while exploiting or eliminating - at the Commander's discretion - the latest, most modern types of hostile modulations and transmission techniques at the key time and place on the battlefield. The system interoperates with ground based intelligence and electronic warfare assets (Ground Based Common Sensor-Light/Heavy) to provide for emitter location accuracies sufficient for "steel on target" and to provide for line of sight extension for C3 electronic attack.

JUSTIFICATION: FY99 funds the annualized costs required to support the on-going modification of the QUICKFIX into the Advanced QUICKFIX (AQF). The modifications initiated in prior fiscal years incorporate into the AQF the following subsystems: (1) TACJAM-A Electronic Support Measures (ESM) subsystem to intercept and locate conventional digital data, burst, and Low Probability of Intercept (LPI) communications; (2) TACJAM-A Electronic Countermeasures (ECM) subsystem to freeze the enemy in place by jamming command and control and fire control communications; (3) CHALS-X(M) miniaturized precision location subsystem to provide for location accuracies of communications emitters sufficient for targeting by organic artillery; and (4) Common Modules ELINT Subsystem (CMES) to identify and locate, also with targeting accuracies, hostile counter/mortar and counter/battery ground surveillance radars.

Exhibit P-40M Budget Item Justification Sheet

Date _____

February 1998

Appropriation / Budget Activity/Serial No.

P-1 Item Nomenclature

AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

EH-60 QUICKFIX MODS (AB3000)

Program Elements for Code B Items

Code

Other Related Program Elements

Description

Fiscal Years

OSIP NO.	Classification
----------	----------------

FY 1996 & Prior

FY

199

17

FY

199

86

13

191

66

T701C Helicopter Engines

1-91-07-0001(1) Operational

External Storage Support Systems

1-91-07-0001(2) Operational

Advanced EH-60 Quickfix Mods

1-91-07-0001(3)	Operational
-----------------	-------------

© 2006 The Authors
Journal compilation © 2006 Blackwell Publishing Ltd

INDIVIDUAL MODIFICATION										Date	February 1998
MODIFICATION TITLE: T701C Helicopter Engines 1-91-07-0001(1)											
MODELS OF SYSTEMS AFFECTED:											
DESCRIPTION / JUSTIFICATION:											
<p>Funds provide for the Advanced QUICKFIX BLACKHAWK Helicopter Power Train Upgrade, whereby existing helicopter engines will be replaced with T701C engines, Improved Durability Gear Boxes (IDGB) and improved Flight Controls thereby increasing lift payload capability. This upgrade is essential to provide the lift capability necessary to carry the mission equipment, External Storage Support Systems (ESSS) and additional fuel required to increase the time on station from 2 hours to the Operational Requirements Document (ORD) requirement of 4.5 hours. Without this upgrade, the mission equipment and fuel would exceed the maximum gross takeoff weight permitted.</p>											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:											
T701 HELICOPTER ENGINES				PLANNED		ACCOMPLISHED					
PLANNED CONTRACT AWARD FY 95				FEB 95		FEB 95					
FIRST KIT APPLIED				NOV 96		NOV 96					
LAST KIT APPLIED				AUG 01							
Installation Schedule:											
Pr Yr		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		3								6 9 6	
Outputs		3								6 9 6	
Totals		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
Inputs		24								24	
Outputs		24								24	
METHOD OF IMPLEMENTATION: Contractor's Facility ADMINISTRATIVE LEADTIME: 13 Months PRODUCTION LEADTIME: 21 Months											
Contract Dates: FY 1997 FY 1998 FY 1999											
Delivery Date: FY 1997 FY 1998 FY 1999											

INDIVIDUAL MODIFICATION																		February 1998		
Date																				
MODIFICATION TITLE (Cont):																				
T701C Helicopter Engines 1-91-07-0001(1)																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment	24	31.8																	24	31.8
Equipment, Nonrecurring		0.9																		0.9
Engineering Change Orders		1.5																		1.5
Data																				
Training Equipment																				
Support Equipment		0.8																		0.8
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	3	0.1									21	0.9							24	1.0
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	3	0.1									21	0.9							24	1.0
Total Procurement Cost		35.1										0.9								36.0

INDIVIDUAL MODIFICATION										Date	February 1998																																																																																																																																																																																																						
MODIFICATION TITLE: External Storage Support Systems 1-91-07-0001(2)																																																																																																																																																																																																																	
MODELS OF SYSTEMS AFFECTED: QUICKFIX, EH-60A, AN/ALQ-151(V)2																																																																																																																																																																																																																	
DESCRIPTION / JUSTIFICATION: Funds will procure External Storage Support Systems (ESSS) to balance the quantity of ESSSs and Engines so that there will be an equal number of complete aircraft sets. These ESSSs are required to carry enough fuel to meet the Operational Requirements Document (ORD) requirement of 4.5 hours time-on station.																																																																																																																																																																																																																	
<div style="display: flex; justify-content: space-between;"> <div> DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: EXTERNAL STORAGE SUPPORT SYSTEM (ESSS) PLANNED CONTRACT AWARD LAST KIT APPLIED </div> <div style="text-align: center;"> PLANNED FEB 95 SEP 96 </div> <div style="text-align: center;"> ACCOMPLISHED MAR 95 SEP 96 </div> </div>																																																																																																																																																																																																																	
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td> </tr> <tr> <td>Outputs</td> <td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td> </tr> <tr> <td>Totals</td> <td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th>Months</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td> <td></td><td></td> </tr> <tr> <td>Totals</td> <td colspan="4"></td><td colspan="4"></td><td colspan="4"></td><td colspan="4"></td> <td>24</td><td>24</td> </tr> </tbody> </table>												Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																					Totals																					Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Months	Inputs																			Outputs																			Totals																	24	24
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																																																																																																																
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																													
Inputs																																																																																																																																																																																																																	
Outputs																																																																																																																																																																																																																	
Totals																																																																																																																																																																																																																	
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																																																																																																																
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Months																																																																																																																																																																																															
Inputs																																																																																																																																																																																																																	
Outputs																																																																																																																																																																																																																	
Totals																	24	24																																																																																																																																																																																															
METHOD OF IMPLEMENTATION: Contractor's Facility ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months Contract Dates: FY 1997 FY 1998 FY 1999 Delivery Date: FY 1997 FY 1998 FY 1999																																																																																																																																																																																																																	

INDIVIDUAL MODIFICATION													
Date February 1998													
External Storage Support Systems 1-91-07-0001(2)													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity													
Installation Kits													
Installation Kits, Nonrecurring													
Equipment	24	9.2											24 9.2
Equipment, Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits	24	0.7											24 0.7
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- kits													
FY 2001 Eqpt -- kits													
FY 2002 Eqpt -- kits													
FY 2003 Eqpt -- kits													
TC Equip-Kits													
Total Installation	24	0.7											24 0.7
Total Procurement Cost		9.9											9.9

INDIVIDUAL MODIFICATION																																																																																																																					
								Date	February 1998																																																																																																												
MODIFICATION TITLE: Advanced EH-60 Quickfix Mods 1-91-07-0001(3)																																																																																																																					
MODELS OF SYSTEMS AFFECTED: QUICKFIX, EH-60A, AN/ALQ-151(V)3																																																																																																																					
DESCRIPTION / JUSTIFICATION:																																																																																																																					
<p>Sensor subsystems to be incorporated into AQF include: TACJAM-A ESM and ECM; CHALS-X(M); and CMES ELINT. The FY 99 APA funds for Hardware costs were redirected to RDTE to complete IOT&E in FY99. The remaining FY99 APA funds are distributed to reflect the activities funded in FY99 as required to support the on-going modification of the QUICKFIX into the Advanced QUICKFIX.</p>																																																																																																																					
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																																					
ADVANCED QUICKFIX (AQF) PLANNED CONTRACT AWARD FIRST KIT APPLIED FIRST UNIT EQUIPPED LAST KIT APPLIED				PLANNED DEC 95 JUN 98 AUG 01 MAR 14			ACCOMPLISHED NOV 95*																																																																																																														
*Due to protest, contract was on hold until Jan 96																																																																																																																					
Installation Schedule:																																																																																																																					
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>										Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																																												
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																																				
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																	
Inputs																																																																																																																					
Outputs																																																																																																																					
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> </thead> <tbody> <tr> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>To</td><td>Complete</td> </tr> <tr> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>30</td><td>51</td> </tr> <tr> <td></td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>30</td><td>51</td> </tr> </tbody> </table>										FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To	Complete																			Inputs																		Outputs																30	51																	30	51
FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																					
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To	Complete																																																																																																				
Inputs																																																																																																																					
Outputs																30	51																																																																																																				
																30	51																																																																																																				
METHOD OF IMPLEMENTATION:																																																																																																																					
Contract Dates:				Contractor's Facility				ADMINISTRATIVE LEADTIME:				PRODUCTION LEADTIME:																																																																																																									
FY 1997				FY 1998				FY 1999				FY 1999																																																																																																									
Delivery Date:				FY 1997				FY 1998				FY 1999																																																																																																									

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												AIRBORNE AVIONICS (AA0700)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	8.2	27.8	28.7	58.3	41.9	56.3	44.4	44.1	58.7	32.2	95.7	496.4	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	8.2	27.8	28.7	58.3	41.9	56.3	44.4	44.1	58.7	32.2	95.7	496.4	
Initial Spares													
Total Proc Cost	8.2	27.8	28.7	58.3	41.9	56.3	44.4	44.1	58.7	32.2	95.7	496.4	
Flyaway U/C													
Wpn Sys Proc U/C													

Description: The Airborne Avionics budget line includes the Global Positioning System (GPS), the Improved Data Modem (IDM) and the Aviation Mission Planning System (AMPS). The GPS, IDM and AMPS are three of the aviation systems required to support the digitization of the battlefield. The GPS provides Army aviation with extremely accurate and secure navigation capability and assists in situational awareness and prevention of fratricide. GPS is installed in several configurations based on mission profile, operational requirements, and avionics architecture of the aircraft. The Embedded Inertial Navigation System (EGI) is used for the scout and attack helicopters. This non-developmental system is part of an Air Force led joint program which was awarded in March 94. The Doppler GPS Navigation System (DGNS) - AN/ASN-128B was awarded in Jul 95. IDM supports battlefield synchronization. Use of the IDM will provide the field commander with the capability for enhanced command and control, situational awareness, and operations in joint service digitized environments. The IDM will enhance digitization of the battlefield, fusion of information, system integration and access to real-time fused intelligence. This joint service program for Air Force, Army, Marine aircraft, and Army command and control platforms is a digital data link modem which exchanges targeting data between the various weapon systems in support of the following missions: suppression of enemy defenses, close air support, forward air control, air combat and command. The IDM provides four (4) half duplex radio channels with three (3) different communication ports: analog, digital, and secure digital. The IDM provides interfaces with MIL-STD 1553B, the current standard military data channel. The AMPS is a planning/battle synchronization tool that will automate aviation mission planning tasks. The system will also provide generation of mission data in either hard copy or electronic formats. The AMPS includes tactical command and control, mission planning, mission management, and maintenance management. The AMPS interfaces with the Maneuver Control System (MCS) and associated networks. This interface will furnish the aviation commander with continuous situational awareness, allowing the commander to rapidly adjust mission plans.

Exhibit P-40C Budget Item Justification Sheet			Date
Appropriation / Budget Activity/Serial No.		P-1 Item Nonendowment	February 1998
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft		AIRBORNE AVIONICS (AA0700)	
Program Elements for Code B Items	Code	Other Related Program Elements	
<p>Justification: The FY 99 funding provides for the installation of 53 EGI (GPS) kits on the Kiowa Warrior aircraft; procurement and modification of 383 AN/ASN 128B boxes to be integrated on the UH-60A/L aircraft and CH-47 without AN/ASN-149 systems. In addition, FY 99 funding provides 51 IDM for the planned Force Package One airframes. FY 99 funds will also procure enhanced ADPE, software upgrades for 91 AMPS. Systems project management, PM administration, nonrecurring engineering, installation and other costs for GPS, IDM and AMPS are also funded during these fiscal years. The FY 99 funding enables the Army to comply with Public Law 103-160 (which directs the installation of GPS on all DOD aircraft by FY00), the Joint Chiefs Of Staff Master Navigation Plan (which directs that the GPS capability be applied to all military aircraft by the year 2000) and the DOD Position/Navigation executive committee which directed the services to utilize GPS as a foundation to satisfy navigation requirements. Furthermore, the services are to invest in reliable, accurate, self-contained systems that satisfy unique platform mission requirements while striving for maximum standardization/commonality between the services. Tactical aircraft must have a GPS Precise Positioning Service (PPS) capability. The IDM program is in response to the need for "Digitization of the Battlefield". It supports the five (5) Army modernization objectives, i.e. project and sustain the force, protect the force, win the battlefield information war, conduct precision strikes throughout the battlefield and dominate the maneuver battle. Digitization is the solution for fusion of information. The IDM joint service application makes it particularly valuable in a threat environment. The AMPS is required to enable the Army to fully implement associated provisions of digitization. Missions and dissemination of battle plans must be electronically planned and transmitted. Manual sources for aviation plans and operations are inadequate for current warfare technology.</p>			

Exhibit P-40M Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No.				P-1 Item Nomenclature				Date			
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft				AIRBORNE AVIONICS (AA0700)				February 1998			
Program Elements for Code B Items		Code		Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	Total
Embedded GPS Inertial Navigation System (EGI)											
TBD 1	Legislative	26.2	6.8	0.9	0.6	0.0	0.0	0.0	0.0	0.0	34.5
Doppler GPS Navigation System (DGNS) (AN/ASN-128B)											
TBD 2	Legislative	18.0	23.4	16.9	18.4	15.7	2.8	0.0	0.0	0.0	95.2
Global Positioning System (GPS) [AN/ASN-149] (No P3a Set)											
TBD 3	Legislative	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
Improved Data Modem (IDM)											
TBD 4	Oper/Log	11.7	13.6	15.4	27.8	16.6	16.1	22.7	17.2	85.1	226.2
Aviation Mission Planning System											
1-95-01-2185	Oper/Log	6.6	14.5	8.7	9.5	9.5	9.1	7.1	0.0	0.0	65.0
Embedded GPS Inertial Navigation System (EGI) PPI											
TBD 1-1	Legislative	0.0	0.0	0.0	0.0	1.7	8.0	14.2	7.5	6.9	38.3
Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI											
TBD 2-2	Legislative	0.0	0.0	0.0	0.0	0.9	8.1	14.7	7.5	3.7	34.9
Totals											
		64.6	58.3	41.9	56.3	44.4	44.1	58.7	32.2	95.7	496.2

INDIVIDUAL MODIFICATION																																																																																																																																																																																																																											
										Date	February 1998																																																																																																																																																																																																																
MODIFICATION TITLE: Embedded GPS Inertial Navigation System (EGI) TBD 1																																																																																																																																																																																																																											
MODELS OF SYSTEMS AFFECTED: Kiowa Warrior																																																																																																																																																																																																																											
DESCRIPTION / JUSTIFICATION: Modification of the OH-58 aircraft to integrate an Embedded Inertial GPS Navigation system. The goal is to enhance aircraft navigation and warfighting capability to meet the JCS navigation plan by installing GPS in the fleet. GPS is one of the aviation systems required for Digitization of the Battlefield. Forty-seven (47) systems will be integrated into Kiowa Warrior aircraft through an engineering change initiative funded by the platform Program Manager.																																																																																																																																																																																																																											
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Contract Award (NDI) ECP Award, Bell Textron International </div> <div style="width: 45%; text-align: right;"> Planned Mar 94 Aug 94 </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> Accomplished Mar 94 Aug 94 </div> </div>																																																																																																																																																																																																																											
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 1997</th> <th colspan="3">FY 1998</th> <th colspan="3">FY 1999</th> <th colspan="3">FY 2000</th> <th colspan="3">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th><th>3</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td>76</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td>38</td><td>38</td><td></td><td></td><td>21</td><td>21</td><td>21</td><td>21</td><td>36</td><td>36</td><td>36</td><td>36</td><td>30</td><td>27</td><td>26</td><td>26</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="3">FY 2002</th> <th colspan="3">FY 2003</th> <th colspan="3">FY 2004</th> <th colspan="3">FY 2005</th> <th colspan="3">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th> <th>4</th><th>1</th><th>2</th> <th>3</th><th>4</th><th>1</th><th>2</th><th>3</th> <th>4</th><th>Complete</th><th>To</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td>1</td><td>2</td><td>3</td><td>4</td><td></td><td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	76																Outputs	38	38			21	21	21	21	36	36	36	36	30	27	26	26	Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals			1	2	3	4	1	2	3	4	1	2	3	4	Complete	To	Inputs																Outputs																Totals	1	2	3	4	1	2	3	4	1	2	3	4				Inputs																Outputs																Totals															
Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001																																																																																																																																																																																																														
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3																																																																																																																																																																																																												
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																																											
Inputs	76																																																																																																																																																																																																																										
Outputs	38	38			21	21	21	21	36	36	36	36	30	27	26	26																																																																																																																																																																																																											
Pr Yr	FY 2002			FY 2003			FY 2004			FY 2005			Totals																																																																																																																																																																																																														
	1	2	3	4	1	2	3	4	1	2	3	4	Complete	To																																																																																																																																																																																																													
Inputs																																																																																																																																																																																																																											
Outputs																																																																																																																																																																																																																											
Totals	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																																																															
Inputs																																																																																																																																																																																																																											
Outputs																																																																																																																																																																																																																											
Totals																																																																																																																																																																																																																											
METHOD OF IMPLEMENTATION: Contractor Teams Contract Dates: FY 1997 Delivery Date: FY 1997																																																																																																																																																																																																																											
ADMINISTRATIVE LEADTIME: 3 Months Mar 97 Apr 98																																																																																																																																																																																																																											
PRODUCTION LEADTIME: 9 Months FY 1999 FY 1999																																																																																																																																																																																																																											

INDIVIDUAL MODIFICATION																
MODIFICATION TITLE (Cont): Embedded GPS Inertial Navigation System (EGI) TBD 1																
FINANCIAL PLAN: (\$ in Millions)																
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RD&E																
PROCUREMENT																
Kit Quantity	264	18.6	86	5.3											350	23.9
Installation Kits		5.2														5.2
Installation Kits, Nonrecurring Equipment		0.6														0.6
Equipment, Nonrecurring																
Engineering Change Orders																
Data																
Training Equipment																
Support Equipment																
Other (Inc PM ADMN/MAT SPT)		1.3		1.2				0.4								2.9
Interim Contractor Support																
Installation of Hardware																
FY 1996 & Prior Eqpt 217 Ki	76	0.5	42	0.3	99	0.7									217	1.5
FY 1997 Eqpt 86 Kits					33	0.2	53	0.2							86	0.4
FY 1998 Eqpt -- Kits																
FY 1999 Eqpt -- Kits																
FY 2000 Eqpt -- kits																
FY 2001 Eqpt -- kits																
FY 2002 Eqpt -- kits																
FY 2003 Eqpt -- kits																
TC Equip-Kits																
Total Installment	76	0.5	42	0.3	132	0.9	53	0.2							303	1.9
Total Procurement Cost		26.2		6.8		0.9		0.6								34.5

INDIVIDUAL MODIFICATION												Date	February 1998				
MODIFICATION TITLE: Doppler GPS Navigation System (DGNS) (AN/ASN-128B) TBD 2																	
MODELS OF SYSTEMS AFFECTED: Blackhawk (UH-60 A/L), Chinook (CH-47D)																	
DESCRIPTION / JUSTIFICATION:																	
<p>Modification of UH-60A/L and CH-47D aircraft is required to integrate a state of the art Global Positioning System. The goal is to enhance aircraft navigation and warfighting capability to meet the JCS navigation plan. GPS is one of the six aviation systems required for Digitization of the Battlefield. The UH-60A/L kit includes a command instrument processor (CIP). Quantities for the CH-47D configuration are: FY97-203, FY98-100, FY99-100, FY00-25. The six integration units being utilized for test and ECP validation are not currently scheduled for installation.</p>																	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																	
<div style="display: flex; justify-content: space-around;"> <div> <u>Planned</u> Aug 93 Aug 95 Dec 95 </div> <div> <u>Accomplished</u> Aug 93 Aug 95 Dec 95 </div> </div>																	
Installation Schedule:																	
Inputs Outputs	Pr Yr	FY 1997			FY 1998			FY 1999			FY 2000			FY 2001			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	60	60	60	60	49	119	119	119	119	120	100	100	100	83	100	100	100
		60	60	60	60	49	119	119	119	119	120	100	100	100	83	100	100
Inputs Outputs	Totals																
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
	63																
		FY 2002			FY 2003			FY 2004			FY 2005			Totals			
		1	2	3	4	1	2	3	4	1	2	3	4	Complete			
														1774			
														1774			
METHOD OF IMPLEMENTATION: Contractor Teams														ADMINISTRATIVE LEADTIME: 1 Months		PRODUCTION LEADTIME: 7 Months	
Contract Dates: FY 1997 Jan 97														FY 1998 Jan 98		FY 1999 Jan 99	
Delivery Date: FY 1997 Sep 97														FY 1998 Sep 98		FY 1999 Sep 99	

INDIVIDUAL MODIFICATION													
Doppler GPS Navigation System (DGNS) (AN/ASN-128B) TBD 2													
MODIFICATION TITLE (Cont):													
FINANCIAL PLAN: (\$ In Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E													
PROCUREMENT													
Kit Quantity	289	6.6	477	10.6	383	8.5	375	8.3	250	6.3			1774
Installation Kits		1.7		2.5		2.0		2.0		1.5			40.3
Installation Kits, Nonrecurring Equipment		0.8											9.7
Equipment, Nonrecurring		2.8		0.7									0.8
Engineering Change Orders		0.7											3.5
Data													0.7
Training Equipment													
Support Equipment	188	3.2	376	5.0		1.4	188	2.8	188	2.8			940
Other (Inc PM ADMIN/MAT SPT)		1.6		2.3				1.5		1.2			13.8
Interim Contractor Support													8.0
Installation of Hardware													
FY 1996 & Prior Eqpt 289 Ki	60	0.6	229	2.3									289
FY 1997 Eqpt 477 Kils					477	5.0							477
FY 1998 Eqpt 383 Kils							383	3.8					383
FY 1999 Eqpt 375 Kils									375	3.9			375
FY 2000 Eqpt 250 kils										2.8	250		250
FY 2001 Eqpt -- kils													
FY 2002 Eqpt -- kils													
FY 2003 Eqpt -- kils													
TC Equip-Kits													
Total Installment	60	0.6	229	2.3	477	5.0	383	3.8	375	3.9	250	2.8	1774
Total Procurement Cost		18.0		23.4		16.9		18.4		15.7		2.8	95.2

INDIVIDUAL MODIFICATION																			
														Date					
														February 1998					
MODIFICATION TITLE: Improved Data Modem (IDM) TBD 4																			
MODELS OF SYSTEMS AFFECTED: IDM MD-1295/A; Aircraft: Longbow (AH-64D), Kiowa Warrior (OH-58D), Special Operations Aircraft (MH-47E/MH-60E), Aviation ground/operations centers.																			
DESCRIPTION / JUSTIFICATION: <p>The Improved Data Modem (IDM) is one of the aviation programs in response to the need for Digitization of the Battlefield. It will provide the field commander with the capability for enhanced command and control, situational awareness and enhanced operations in joint service digitized environments. IDM is a joint-service program with installation on Air Force, Army and Marine aircraft and Army command and control platforms. The IDM is a digital data link modem which exchanges targeting data between the various weapons systems in support of the following missions: suppression of enemy air defenses, close air support, forward air control, air combat and command control. The IDM provides four (4) half duplex radio channels with three (3) different communication ports: analog, digital and secure digital. The IDM will enable the army to maintain capabilities to gather, process and transmit information to all areas of the battlefield. IDMs for Longbow and uninducted Kiowa Warrior aircraft will be incorporated in production. IDMs for fielded Kiowa Warrior aircraft will be installed by the Kiowa Warrior PM during implementation of the safety enhancement engineering change. The IDMs for Special Operations Aircraft will be installed by SOA logistics contractors.</p>																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																			
Exercise Air Force Production Contract Options Non-Recurring System Integration										Planned Apr 96 Mar 96					Accomplished Apr 96 Mar 96				
Installation Schedule:																			
Inputs Outputs		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001									
		1	2	3	4	1	2	3	4	1	2	3	4						
Totals																			
Inputs Outputs		FY 2002		FY 2003		FY 2004		FY 2005		To									
		1	2	3	4	1	2	3	4	1	2	3	4						
Totals																			
METHOD OF IMPLEMENTATION:																			
Contract Dates: FY 1997 Apr 97 FY 1998 Dec 97 FY 1999 Dec 96																			
Delivery Date: FY 1997 Jul 98 FY 1998 Mar 99 FY 1999 Mar 00																			
										PRODUCTION LEADTIME: 15 Months									

INDIVIDUAL MODIFICATION														Date		February 1998				
MODIFICATION TITLE (Cont): Improved Data Modem (IDM) TBD 4																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	115	3.5	94	3.5	51	1.9	51	2.0	54	2.1	51	2.0	120	4.9	120	5.0	282	12.8	938	37.7
Installation Kits																				
Installation Kits, Nonrecurring Equipment		2.1		3.2		5.9		3.0												14.2
Equipment, Nonrecurring		2.6		0.1																0.1
Engineering Change Orders		0.6		1.4		1.3		0.8		0.8		0.4		0.3		0.3		1.9		9.8
Data				1.4		3.2		20.1		10.6		11.8		15.5		9.5		51.9		124.6
Training Equipment																				
Support Equipment		0.1																		0.1
Other (Inc PM ADMIN/MAT SPT)		2.8		3.2		2.2		1.7		2.3		1.9		2.0		2.4		18.5		37.0
Interim Contractor Support																				
Fielding				0.4		0.5		0.1												1.0
System Test & Evaluation				0.4		0.4		0.1		0.8										1.7
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits-Kits																				
Total Installment		11.7		13.6		15.4		27.8		16.6		16.1		22.7		17.2		85.1		226.2
Total Procurement Cost																				

INDIVIDUAL MODIFICATION												Date	February 1998																																																																																				
MODIFICATION TITLE: Aviation Mission Planning System 1-95-01-2185																																																																																																	
MODELS OF SYSTEMS AFFECTED: Kiowa Warrior (OH-58D); Blackhawk (UH-60 A/L); MEDIVAC (UH-60Q); Chinook (CH-47D); Longbow (AH-64D/AH-64 Modernization)																																																																																																	
DESCRIPTION / JUSTIFICATION:																																																																																																	
Provides for state-of-the-art tactical automated data processing equipment, peripheral equipment, testing, software changes/updates, required to bring the current AMPS configuration to the required operational capability. Since the airframes have the data receptacles/busses required to interface with AMPS there is no installation cost/schedule.																																																																																																	
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:																																																																																																	
<table border="0"> <tr> <td></td> <td><u>Planned</u></td> <td><u>Accomplished</u></td> </tr> <tr> <td>Material Change Approval</td> <td>Mar 95</td> <td>Mar 95</td> </tr> <tr> <td>In-Process Review</td> <td>Aug 95</td> <td>Aug 95</td> </tr> <tr> <td>In-Process Review</td> <td>Dec 98</td> <td></td> </tr> <tr> <td>Material Release</td> <td>Mar 99</td> <td></td> </tr> </table>															<u>Planned</u>	<u>Accomplished</u>	Material Change Approval	Mar 95	Mar 95	In-Process Review	Aug 95	Aug 95	In-Process Review	Dec 98		Material Release	Mar 99																																																																						
	<u>Planned</u>	<u>Accomplished</u>																																																																																															
Material Change Approval	Mar 95	Mar 95																																																																																															
In-Process Review	Aug 95	Aug 95																																																																																															
In-Process Review	Dec 98																																																																																																
Material Release	Mar 99																																																																																																
Installation Schedule:																																																																																																	
<table border="1"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>														Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs																					Outputs																				
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001																																																																																
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																													
Inputs																																																																																																	
Outputs																																																																																																	
<table border="1"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="4">To</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>Complete</td> <td></td><td></td><td></td> </tr> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table>														Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				To				Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete				Inputs																					Outputs																				
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				To																																																																																
Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete																																																																																
Inputs																																																																																																	
Outputs																																																																																																	
METHOD OF IMPLEMENTATION: N/A																																																																																																	
Contract Dates: FY 1997 Jan 97 FY 1998 Jan 98 FY 1999 Jan 99																																																																																																	
Delivery Date: FY 1997 Aug 97 FY 1998 Aug 98 FY 1999 Aug 99																																																																																																	
PRODUCTION LEADTIME: 5 Months																																																																																																	

INDIVIDUAL MODIFICATION																		
Aviation Mission Planning System 1-95-01-2185																		
Date February 1998																		
den.																		
FINANCIAL PLAN: (\$ in Millions)																		
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																		
PROCUREMENT																		
Kit Quantity	70	2.4	317	8.9	41	1.4	91	2.7	101	3.2	89	2.9	90	2.9			799	24.4
Installation Kits																		
Installation Kits, Nonrecurring Equipment		2.6		0.8		2.0		1.4		1.3		1.2						9.3
Equipment, Nonrecurring																		
Engineering Change Orders		0.9		3.9		4.2		4.3		4.0		4.0		3.7				25.0
Data																		
Training Equipment																		
Support Equipment																		
Other (Inc PM ADMIN/MAT SPT)		0.7		0.9		1.1		1.1		1.0		1.0		0.5				6.3
Interim Contractor Support																		
Installation of Hardware																		
FY 1996 & Prior Eqpt -- Kits																		
FY 1997 Eqpt -- Kits																		
FY 1998 Eqpt -- Kits																		
FY 1999 Eqpt -- Kits																		
FY 2000 Eqpt -- kits																		
FY 2001 Eqpt -- kits																		
FY 2002 Eqpt -- kits																		
FY 2003 Eqpt -- kits																		
TC Equip-Kits																		
Total Installment																		
Total Procurement Cost		6.6		14.5		8.7		9.5		9.5		9.1		7.1				65.0

INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Embedded GPS Inertial Navigation System (EGI) PPI TBD 1-1

MODELS OF SYSTEMS AFFECTED: Kiowa Warrior (OH-58D), Apache A+ (AH-64A+), Longbow (AH-64D), Special Operations Aircraft (SOA)

DESCRIPTION / JUSTIFICATION:

GPS is one of the aviation systems required for Digitization of the Battlefield. FY 2000 starts the aircraft integration and the procurement of the GPS EGI Preplanned Product Improvement (PPPI) interchangeable module in accordance with NAVWARFARE and airspace requirements for the KIOWA WARRIOR (OH-58D), APACHE A+ (AH-64A+), LONGBOW (AH-64D), Special Operations Aircraft (SOA).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned
Contract Award (ECP)	Nov 99
Production Contract Award	Apr 01

Installation Schedule:

[illegible]

	FY 2002				FY 2003				FY 2004				FY 2005				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	130	130	130	106	202	202	202	200	100	100	100	72	100	100	100	25	1999	
Outputs	130	130	130	130	106	202	202	202	200	100	100	100	72	100	100	25	1999	

METHODOLOGY		CONTRACTOR		LEAD TIME	
METHOD OF IMPLEMENTATION:	Contractor Teams	ADMINISTRATIVE LEAD TIME:	1 Months	PRODUCTION LEAD TIME:	6 Months
<p> </p>					

Contract Dates:

Delivery Date:

INDIVIDUAL MODIFICATION													
Date February 1998													
MODIFICATION TITLE (Cont): Embedded GPS Inertial Navigation System (EGI) PPI TBD 1-1													
FINANCIAL PLAN: (\$ in Millions)													
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
RDT&E													
PROCUREMENT													
Kit Quantity													
Installation Kits													
Installation Kits, Nonrecurring Equipment													
Equipment, Nonrecurring													
Engineering Change Orders													
Data													
Training Equipment													
Support Equipment													
Other (Inc PM ADMN/MAT SPT)													
Interim Contractor Support													
Installation of Hardware													
FY 1996 & Prior Eqpt -- Kits													
FY 1997 Eqpt -- Kits													
FY 1998 Eqpt -- Kits													
FY 1999 Eqpt -- Kits													
FY 2000 Eqpt -- Kits													
FY 2001 Eqpt 496 kits													
FY 2002 Eqpt 806 kits													
FY 2003 Eqpt 372 kits													
TC Equip 325 Kits													
Total Installment													
Total Procurement Cost													

INDIVIDUAL MODIFICATION																
														Date		
														February 1998		
MODIFICATION TITLE: Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI TBD 2-2																
MODELS OF SYSTEMS AFFECTED: Blackhawk (UH-60 A/L), Chinook (CH-47D)																
DESCRIPTION / JUSTIFICATION: <p>GPS is one of the six aviation systems required for Digitization of the Battlefield. FY 2000 starts the aircraft integration and the procurement of the AN/ASN-128B/LDNS Preplanned Product Improvement (PPPI) interchangeable module in accordance with NAVWARFARE and airspace requirements for the UH-60 A/L and CH-47D.</p>																
<div style="display: flex; justify-content: space-between;"> <div> DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Contract Award (ECP) Production Contract Award </div> <div> <u>Planned</u> Dec 99 Jan 01 </div> <div> <u>Accomplished</u> </div> </div>																
Installation Schedule:																
Inputs Outputs	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	Totals															
Inputs Outputs	FY 2002		FY 2003		FY 2004		FY 2005		FY 2006							
	1	2	3	4	1	2	3	4	1	2	3	4	Totals			
	Totals															
METHOD OF IMPLEMENTATION: Contractor Teams ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months FY 1997 FY 1998 FY 1999 FY 1999 FY 1997 FY 1998 FY 1999 FY 1999																
Contract Dates: Delivery Date:																

INDIVIDUAL MODIFICATION																				
Date												February 1998								
Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI TBD 2-2																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity											475	6.9	820	11.9	358	5.2	121	1.7	1774	25.7
Installation Kits																				
Installation Kits, Nonrecurring Equipment										0.7										0.7
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other (Inc PM ADMIN/MAT SPT)										0.2	1.2		2.0		0.9			1.2		5.5
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt 475 kits													475	0.8					475	0.8
FY 2002 Eqpt 820 kits															820	1.4			820	1.4
FY 2003 Eqpt 358 kits																	358	0.6	358	0.6
TC Equip-121 Kits																	121	0.2	121	0.2
Total Installment													475	0.8	820	1.4	479	0.8	1774	3.0
Total Procurement Cost										0.9	8.1		14.7		7.5		3.7		34.9	

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity / Serial No.												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												ASE MODS (AA0720)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	103.1	8.8	14.1	25.9	18.6	2.7	12.7	21.8	17.3	14.7	0.0	239.7	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	103.1	8.8	14.1	25.9	18.6	2.7	12.7	21.8	17.3	14.7		239.7	
Initial Spares													
Total Proc Cost	103.1	8.8	14.1	25.9	18.6	2.7	12.7	21.8	17.3	14.7	0.0	239.7	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION:
 ASE modifications provides funding for Aircraft Survivability Equipment (ASE) upgrades by incorporation of latest state-of-the-art technology needed to meet current and emerging threats. Modular upgrades are applied in lieu of new developments to obtain the most cost effective improved systems. Modifications to current systems will sustain and protect the forces, conduct precision strikes, and dominate the maneuver battle. Installing ASE items on aircraft systems improves their threat defeating capabilities. This budget item rolls up four modification efforts that test, procure and install A-Kits on Army airframes.

JUSTIFICATION: FY99 funding will be used for:
 A. AN/ALQ-211 Suite of Integrated Radio Frequency Countermeasures (SIRFC) for the AH-64D aircraft. The AH-64D requires additional capabilities to detect and defeat air and ground radar frequency (RF) missiles and to provide situational awareness to the pilot. The improvements needed will be satisfied by SIRFC. FY99 funds are required for nonrecurring engineering for the integration program. This system was previously referred to as the Advanced Threat Radar Jammer (ATRJ) and the new nomenclature was approved July 1996.
 B. Advanced Threat Infrared Countermeasures/Common Missile Warning System (ATIRCM/CMWS). The ATIRCM/CMWS is the core of the Suite of Integrated Infrared Countermeasures. This suite will provide active and passive infrared countermeasures (IRCM) protection against infrared guided weapons. The system is applicable to the AH-64D, MH-47D/E, MH-60K/L, EH-60, UH-60, and CH-47D aircraft.

[illegible]

INDIVIDUAL MODIFICATION

MODIFICATION TITLE: Laser Detecting Set - AN/AVR-2A(V)/AH-64 1-92-01-2182

MODELS OF SYSTEMS AFFECTED: AH-64

DESCRIPTION / JUSTIFICATION:

The AN/AVR-2A(V) Laser Detecting Set (LDS) consists of two dual sensor units and an infrared unit comparator. The system interfaces with the AN/APR-39 radar detecting set, and utilizes the AN/APR-39 signal comparator and control unit to function as an integrated radar and laser detecting set system. The laser sensor units detect laser energy and converts it to electrical signals. These signals are processed, formatted and sent to the comparator as digital word messages. The comparator further processes the data and forwards this threat information to be displayed on the AN/APR-39 signal indicator inside the cockpit, at the same time, an audio tone alerts the crew. Materiel change (MC) estimates include the following - procurement of hardware, retrofit for aircraft and project management cost. In addition, technical manual changes, retrofit kit data and the modification work order (MWO) will also be provided by the contractor. This procurement equals current requirements for installation kits for 346 APACHE aircraft. LONGBOW A-Kits will be installed as part of the LONGBOW production effort.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Engineering Change Proposal (ECP) Development Award - Oct 92	FY97 B-Kit Contract (Option) Award - Jun 97
ECP Approval - May 95	FY97 B-Kit Hardware Delivery - Jan 99
PY A-Kit Production Contract Award - May 95	FY98 B-Kit Contract (Option) Award - Mar 98
PY A-Kit Production Hardware Delivery - Mar 97	FY98 B-Kit Hardware Delivery - Mar 99
FY97 A-Kit Production Contract Award - Mar 97	
FY97 A-Kit Production Hardware Delivery - Jan 98	

Installation Schedule:

	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	Totals																				
Outputs		20	100	100	100	43	40	43													
		20	100	100	100	43	40	43													

	FY 2002				FY 2003				FY 2004				FY 2005				To Complete	Totals	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Outputs																		346	346

METHOD OF IMPLEMENTATION: OLR Teams

ADMINISTRATIVE LEADTIME: 1 Months

PRODUCTION LEADTIME: 9 Months

Contract Dates: FY 1997 Mar 97 FY 1998

Delivery Date: FY 1997 Jan 98 FY 1998

METHOD OF IMPLEMENTATION: OLR Teams

Contract Dates:

Delivery Date:

FY 1997 Mar 97
FY 1997 Jan 98

ADMINISTRATIVE LEADTIME:

FY 1998
FY 1998

1 Months

9 Months

PRODUCTION LEADTIME:

FY 1999
FY 1999

INDIVIDUAL MODIFICATION															Date	February 1998																																																																																																																																																																																			
MODIFICATION TITLE: Infrared Countermeasure Set - AN/ALQ-144A/OH-58D 1-92-01-2181																																																																																																																																																																																																			
MODELS OF SYSTEMS AFFECTED: OH-58D																																																																																																																																																																																																			
DESCRIPTION / JUSTIFICATION: <p>The AN/ALQ-144A Infrared Countermeasures Set is designed to confuse or decoy threat infrared (IR) missile systems. The purpose of this materiel change (MC) is the installation of the A-Kit on the fleet. This MC provides for the aircraft modification/A-Kit to accept the AN/ALQ-144A system. The milestones relate to the installation of the aircraft A-Kit hardware.</p>																																																																																																																																																																																																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <p>Installation of Hardware FY95 - Jul 95 Installation of Hardware FY96 - Oct 95 Installation of Hardware FY97 - Mar 97 Installation of Hardware FY98 - Mar 98</p>																																																																																																																																																																																																			
Installation Schedule: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>16</td><td>16</td><td>12</td><td>12</td> <td>12</td><td>24</td><td>24</td><td>17</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Outputs</td> <td>288</td><td>16</td><td>16</td><td>12</td> <td>12</td><td>24</td><td>24</td><td>17</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Totals</td> <td>288</td><td>16</td><td>16</td><td>12</td> <td>12</td><td>24</td><td>24</td><td>17</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th colspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th><th>Months</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>385</td> </tr> <tr> <td>Outputs</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>385</td> </tr> </tbody> </table>																	Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Inputs	16	16	12	12	12	24	24	17													Outputs	288	16	16	12	12	24	24	17													Totals	288	16	16	12	12	24	24	17													Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Months	Inputs																		385	Outputs																		385
Pr Yr	FY 1997				FY 1998				FY 1999				FY 2000					FY 2001																																																																																																																																																																																	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																																																																																																																																															
Inputs	16	16	12	12	12	24	24	17																																																																																																																																																																																											
Outputs	288	16	16	12	12	24	24	17																																																																																																																																																																																											
Totals	288	16	16	12	12	24	24	17																																																																																																																																																																																											
Pr Yr	FY 2002				FY 2003				FY 2004				FY 2005				Totals																																																																																																																																																																																		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	Months																																																																																																																																																																																	
Inputs																		385																																																																																																																																																																																	
Outputs																		385																																																																																																																																																																																	
METHOD OF IMPLEMENTATION: Contract/Depot Contract Dates: FY 1997 Delivery Date: FY 1997																																																																																																																																																																																																			
ADMINISTRATIVE LEADTIME: Months FY 1998 FY 1998																																																																																																																																																																																																			
PRODUCTION LEADTIME: Months FY 1999 FY 1999																																																																																																																																																																																																			

INDIVIDUAL MODIFICATION														February 1998						
MODIFICATION TITLE (Cont):														Date						
Infrared Countermeasure Set - AN/ALQ-144A/OH-58D 1-92-01-2181																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity	385	2.0																	385	2.0
Installation Kits																				
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits	288	0.3	56	0.1	41	0.1													385	0.5
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits																				
FY 2001 Eqpt -- kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	288	0.3	56	0.1	41	0.1													385	0.5
Total Procurement Cost		2.3		0.1		0.1														2.5

INDIVIDUAL MODIFICATION												Date	February 1998	
MODIFICATION TITLE: AN/ALQ-211 Suite of Integrated Radio Frequency CMS 1-92-01-2187														
MODELS OF SYSTEMS AFFECTED: AH-64D														
DESCRIPTION / JUSTIFICATION: <p>The AH-64D requires additional capabilities to detect and defeat air and ground launched radar frequency (RF) missiles. The improvements needed will be satisfied by the Suite of Integrated Radio Frequency Countermeasures (SIRFC). This system is identified in the ASE/APACHE requirements documents and will improve aircraft survivability and mission accomplishment. The protection of the AH-64D against Air Defense Artillery (ADA) threats is one of the most important considerations due to the aircraft's mission profile.</p>														
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <p>Engineering Change Proposal (ECP) Development Award - Apr 96 ECP Approval - Jul 99 Production Contract Award - Jan 00 Production Hardware Delivery - Jun 01 First Kit Applied - Jul 01</p>														
Installation Schedule:														
		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001				
Pr Yr		1	2	3	4	1	2	3	4	1	2	3	4	
Totals														
Inputs														
Outputs														
		FY 2002		FY 2003		FY 2004		FY 2005		To		Totals		
1		2	3	4	1	2	3	4	1	2	3	4		
Totals														
Inputs														
Outputs														
METHOD OF IMPLEMENTATION: Contract/Depot														
Contract Dates: FY 1997														
Delivery Date: FY 1997														
ADMINISTRATIVE LEADTIME:														
PRODUCTION LEADTIME:														
Months:														

INDIVIDUAL MODIFICATION																		Date		February 1998					
MODIFICATION TITLE (Cont):																		AN/ALQ-211 Suite of Integrated Radio Frequency CMS 1-92-01-2187							
FINANCIAL PLAN: (\$ in Millions)																									
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL						
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$					
RDT&E																									
PROCUREMENT																									
Kit Quantity																									
Installation Kits																									
Installation Kits, Nonrecurring Equipment		11.9		5.2		2.2		2.7		22	2.8		55	6.8					77	9.6 22.0					
Equipment, Nonrecurring Engineering Change Orders																									
Data																									
Training Equipment																									
Support Equipment																									
Other		0.5									0.4			0.1						1.0					
Interim Contractor Support																									
Installation of Hardware																									
FY 1996 & Prior Eqpt -- Kits																									
FY 1997 Eqpt -- Kits																									
FY 1998 Eqpt -- Kits																									
FY 1999 Eqpt -- Kits																									
FY 2000 Eqpt -- kits																									
FY 2001 Eqpt -- kits											22	1.2							22	1.2					
FY 2002 Eqpt -- kits											5	0.3		2.8	50			55	3.1						
FY 2003 Eqpt -- kits																									
TC Equip-Kits																									
Total Installation											27	1.5		2.8	50				77	4.3					
Total Procurement Cost		12.4		5.2		2.2		2.7		2.8		8.7		2.9						36.9					

INDIVIDUAL MODIFICATION										Date	February 1998																								
MODIFICATION TITLE: Advanced Threat Infrared Countermeasures (ATIRCM) TBD																																			
MODELS OF SYSTEMS AFFECTED: AH-64D, MH-47D/E, MH-60K/L, EH-60, UH-60, OH-58D, CH-47D																																			
DESCRIPTION / JUSTIFICATION: <p style="margin-top: 10px;"> The ATIRCM is a requirement for current generation Army aircraft. The ATIRCM/CMWS is one system which is the core of a Suite of Integrated Infrared Countermeasures (SIIRCM). This Suite will provide active and passive infrared countermeasures (IRCM) protection against infrared guided weapons. The system is designed to meet operational requirements for a modular IRCM system capable of providing awareness and self protection jamming countermeasures. The system is applicable to AH-64D, MH-47D/E, MH-60K/L, EH-60, UH-60, OH-58D and CH-47D aircraft. The program has been designated a tri-service program, with application to Air Force and Navy aircraft. FY 99 funds are required to initiate procurement of Army ATIRCM/CMWS A-Kits for the Special Operations Aircraft. </p>																																			
DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> Milestone I/II - Jun 95 EMD Contract Award - Sep 95 System Design Review - Mar 96 Preliminary Design Review - Jun 96 Critical Design Review - Feb 97 Production Contract Award - May 01 </div> <div> Production Hardware Delivery - May 02 First Kit Applied - Dec 02 </div> </div>																																			
Installation Schedule: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width:5%;">Pr Yr</th> <th style="width:10%;">FY 1997</th> <th style="width:10%;">FY 1998</th> <th style="width:10%;">FY 1999</th> <th style="width:10%;">FY 2000</th> <th style="width:10%;">FY 2001</th> </tr> <tr> <td>Totals</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>1</td> </tr> <tr> <td>Inputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Outputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												Pr Yr	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Totals	1	2	3	4	1	Inputs						Outputs					
Pr Yr	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001																														
Totals	1	2	3	4	1																														
Inputs																																			
Outputs																																			
<table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width:5%;">Pr Yr</th> <th style="width:10%;">FY 2002</th> <th style="width:10%;">FY 2003</th> <th style="width:10%;">FY 2004</th> <th style="width:10%;">FY 2005</th> <th style="width:10%;">To Complete</th> </tr> <tr> <td>Totals</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>1</td> </tr> <tr> <td>Inputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Outputs</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												Pr Yr	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Totals	1	2	3	4	1	Inputs						Outputs					
Pr Yr	FY 2002	FY 2003	FY 2004	FY 2005	To Complete																														
Totals	1	2	3	4	1																														
Inputs																																			
Outputs																																			
METHOD OF IMPLEMENTATION: Contract/Depot ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months																																			
Contract Dates: FY 1997 FY 1998 FY 1999																																			
Delivery Date: FY 1997 FY 1998 FY 1999																																			

INDIVIDUAL MODIFICATION														Date		February 1998				
Advanced Threat Infrared Countermeasures (ATIRCM) TBD																				
MODIFICATION TITLE (Cont):																				
FINANCIAL PLAN: (\$ in Millions)																				
	FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits									18	3.1	24	4.6	31	5.7	46	9.6			119	23.0
Installation Kits, Nonrecurring						7.3				6.5		6.9		6.5		2.1				38.4
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders										0.3		0.3		0.4		0.6				1.6
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1996 & Prior Eqpt -- Kits																				
FY 1997 Eqpt -- Kits																				
FY 1998 Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- kits											18	1.3							18	1.3
FY 2001 Eqpt -- kits													24	1.8					24	1.8
FY 2002 Eqpt -- kits															31	2.4			31	2.4
FY 2003 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment											18	1.3	24	1.8	31	2.4			73	5.5
Total Procurement Cost						7.3			9.9			13.1	14.4		14.7					68.5

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft												P-1 Item Nomenclature:
MODIFICATIONS < \$2.0M (AA0725)												
Program Elements for Code B Items:												
Code:												
Other Related Program Elements:												
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty												
Gross Cost	1.0	1.8	2.4	1.8	1.7	1.9	1.9	1.9	1.9	6.0	24.0	
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1.0	1.8	2.4	1.8	1.7	1.9	1.9	1.9	1.9	6.0	24.0	
Initial Spares												
Total Proc Cost	1.0	1.8	2.4	1.8	1.7	1.9	1.9	1.9	1.9	6.0	24.0	
Flyaway U/C												
Wpn Sys Proc U/C												
<p>DESCRIPTION: This modification line updates and modernizes the C-12 aircraft communication, navigation and flight management equipment to current international standards in order to standardize the fleet, allow worldwide deployments, and upgrade capability for continued safe operations into the 21st Century. This line will also update the C-23, C-26 and UC-35 and other non-C-12 fixed-wing aircraft to meet future avionics requirements resulting from worldwide navigation transition to Global Positioning System enroute and approach systems and the Chairman of the Joint Chief of Staff Master Navigation Plan requirements.</p> <p>JUSTIFICATION: FY 99 will provide funding for the C-12 avionics upgrade. The majority of the Army C-12 aircraft were purchased between 1971 and 1989 and were equipped with then current avionics and navigation equipment. Current Army modernization plans will retain the C-12 fleet in active service beyond 2017. Worldwide deployments using modern navigation and air traffic control facilities beyond the year 2000 are required. During deployments in support of Desert Storm/Desert Shield/Provide Comfort, only selected aircraft with non-standard modifications were capable of being deployed to and within the theater. Elimination of obsolete communication and navigation systems will enhance reliability and maintainability by employing current commercial systems thereby improving C-12 availability and cockpit standardization.</p>												

Exhibit P-40M Budget Item Justification Sheet

Date _____

February 1998

Appropriation / Budget Activity/Serial No.

P-1 Item Nomenclature

AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

MODIFICATIONS < \$2.0M (AA0725)

Program Elements for Code B Items

Code

Other Related Program Elements

Description

Fiscal Years

OSIP NO.	Classification
----------	----------------

OSIP NO.	Classification
Engine Trend Monitor System (No P3a Set)	

	Operational	2.4	0.0	0.0	0.0	0.0	0.0	0.0	2.4
1-95-01-0677	Operational	2.4	0.0	0.0	0.0	0.0	0.0	0.0	2.4

Avionics System Cockpit Upgrade - Group I

	Operational	0.0	1.7	1.7	1.9	1.8
1-96-01-0611	Operational	0.0	1.7	1.7	1.9	1.8

0.0

Totals	24	18	17	19	60
	24	17	17	19	60
				19	212

INDIVIDUAL MODIFICATION														February 1998					
Date																			
Avionics System Cockpit Upgrade - Group I 1-96-01-0611																			
MODIFICATION TITLE (Cont):																			
FINANCIAL PLAN: (\$ in Millions)																			
FY 1996 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																			
PROCUREMENT																			
Kit Quantity																			
Installation Kits		298	1.4	16	1.5	13	1.3	4	1.0	8	1.0	8	1.0	8	1.0	6.0	355	14.2	
Installation Kits, Nonrecurring Equipment								0.4										0.4	
Equipment, Nonrecurring																			
Engineering Change Orders																			
Data			0.1				0.2											0.3	
Training			0.1				0.1											0.3	
Support Equipment																			
Other																			
Interim Contractor Support																			
Installation of Hardware																			
FY 1996 & Prior Eqpt -- Kits																			
FY 1997 Eqpt -- 298 Kits		298	0.2	16	0.1	13	0.1	4	0.5	8	0.9	8	0.9	8	0.9		298	0.2	
FY 1998 Eqpt -- 16 Kits																	16	0.1	
FY 1999 Eqpt -- 13 Kits						13	0.1										13	0.1	
FY 2000 Eqpt --4 Kits								4	0.5								4	0.5	
FY 2001 Eqpt --8 Kits										8	0.9						8	0.9	
FY 2002 Eqpt --8 Kits												8	0.9				8	0.9	
FY 2003 Eqpt --8 Kits														8	0.9		8	0.9	
TC Equip-Kits																			
Total Insalment		298	0.2	16	0.1	13	0.1	4	0.5	8	0.9	8	0.9	8	0.9		355	3.6	
Total Procurement Cost			1.8		1.7		1.7		1.9		1.9		1.9		1.9	6.0		18.8	

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:										Date: February 1998		
AIRCRAFT PROCUREMENT / 3 / Spares and Repair Part										INITIAL SPARES AIR (AA0950)		
P-1 Item Nomenclature:												
Program Elements for Code B Items:										Other Related Program Elements:		
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	6643.9	36.5	27.7	38.2	23.2	36.0	26.2	19.0	25.4	28.3	0.0	6904.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	6643.9	36.5	27.7	38.2	23.2	36.0	26.2	19.0	25.4	28.3	0.0	6904.4
Initial Spares												
Total Proc Cost	6643.9	36.5	27.7	38.2	23.2	36.0	26.2	19.0	25.4	28.3	0.0	6904.4
Flyaway U/C												
Wpn Sys Proc U/C												
Description: Provides for procurement of spares to support initial fielding of new or modified end items.												
Justification: The funds in this account procure depot level repairable (DLRs) secondary items from the Supply Management, Army activity of the Army Working Capital Fund. To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:												
<u>System</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>								
ASE	5.3	0.6	0.6	0.6								
Helicopter, Utility, UH-60	8.5	6.4	2.4	1.9								
Guardrail, Common Sensor	4.7	11.3	0.8									
Guardrail Mods (TIARA)	0.4	5.7	3.3	6.8								
Helicopter, OH-58D		2.3		0.7								
(cont)												

Exhibit P-40C Budget Item Justification Sheet				
Appropriation / Budget Activity/Serial No.	Date	P-1 Item Nomenclature	INITIAL SPARES AIR (AA0950)	
AIRCRAFT PROCUREMENT / 3 / Spares and Repair Part				
Program Elements for Code B Items	Code	Other Related Program Elements		
<u>System</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>
Kiowa Warrior	6.4	1.4		
ANVIS (Night Vision Goggles)	0.8			
Avionics	1.6	3.1	2.9	4.1
Longbow		7.4	13.2	21.9
Total	27.7	38.2	23.2	36.0

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities												AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	801.3	34.6	52.0	0.3	8.1	5.1	51.0	40.0	96.7	99.5	770.0	1958.6	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	801.3	34.6	52.0	0.3	8.1	5.1	51.0	40.0	96.7	99.5	770.0	1958.6	
Initial Spares													
Total Proc Cost	801.3	34.6	52.0	0.3	8.1	5.1	51.0	40.0	96.7	99.5	770.0	1958.6	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION:

Aircraft Survivability Equipment (ASE) provides self protection, both active and passive, against anti-aircraft systems. The ASE program enables the Army tactical aircraft fleet to accomplish its mission on the modern battlefield by enhancing aircraft and aircrew survivability. The program is structured to procure and field the required ASE to effectively combine tactics with passive devices, active devices, and vulnerability reduction items so that Army aviation will be able to operate as intended in support of Army land battle operations in spite of modern anti-aircraft threats. Individual ASE items are generic systems, which are adapted to various aircraft. ASE CORE programs provide for priority aircraft units to receive tailored ASE suites.

ASE includes radar, infrared, and electro-optical (EO) countermeasure devices. To ensure that all aircraft have the ability to detect and defeat threat anti-aircraft systems, each airframe within the fleet is equipped or provisioned with a combination of devices based on mission requirements, space, weight, and power. Current and future acquisitions are programmed to keep pace as threat capabilities improve. ASE will sustain and protect the forces, conduct precision strikes, dominate the maneuver battle, and improve aircraft threat capabilities.

JUSTIFICATION: FY99 funds provide resources for Advanced Threat Infrared Countermeasures (ATIRCM) and Suite of Integrated Radio Frequency Countermeasures (SIRFC) initial production programs.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities				P-1 Line Item Nomenclature: AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)				Weapon System Type		Date: February 1998	
Aircraft Cost Elements		FY 96		FY 97		FY 98		FY 99					
ID	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. AZ3506 - ASE Warning Receivers													
AN/APR-39A(V)1 Radar Signal Detecting Set	A	945											
Government In-House Support													
AN/APR-39A(V)2 Radar Signal Detecting Set	A	3700											
Nonrecurring Engineering		355											
Government In-House Support													
AN/APR-48A Radar Interferometer	A	3300											
Nonrecurring Engineering/Tooling													
AN/AVR-2A(V) Laser Detecting Set	A	912											
Government In-House Support													
Project Management Support & Fielding of ASE Systems		4572			284						905		
ASE Integration Program													
ASET IV Threat Generator		3071									7212		
		960											
SUBTOTAL - ASE WARNING RECEIVERS		17815			284						8117		
2. AZ3507 - ASE INFRARED CMS													
Advanced Threat Infrared Countermeasures	B												
Nonrecurring Engineering													
Recurring Engineering													
Engineering Changes													
Project Management													
Data													
SUBTOTAL - ASE INFRARED CMS													
3. AZ3508 - ASE RADAR CMS													
Suite of Integrated Radio Freq CMS (SIRFC)	B												
Nonrecurring Engineering											4931		
Recurring Engineering													
Engineering Change Orders											213		
Project Management													
Data													
System Test and Evaluation													
SUBTOTAL - ASE RADAR CMS													

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AIRCRAFT SURVIVABILITY EQUIPMENT (A23504)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
4. AZ5700 - ASE TRAINING DEVICES														
AN/TPQ-45 (ASET IV) Threat Generator	A													
AN/TPQ-45 Systems			24300	3	8100									
Project Management			1000											
Prototype Refurbishment			3000											
MILES/Night Vision			2000											
Nonrecurring Engineering			3840											
SUBTOTAL - ASE TRAINING DEVICES			34140											
SUBTOTAL - ASE			61955			284			8117			5144		
Initial SPARES			5307			599			575			583		
SUBTOTAL - ASE INITIAL SPARES			5307			599			575			583		
TOTAL			57262			883			8692			5727		

Exhibit P-5a, Budget Procurement History and Planning										Date:
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities										February 1998
Weapon System Type:										
P-1 Line Item Nomenclature:										
ASE TRAINING DEVICES (AZ5700)										
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Reven Avail	RFP Issue Date
ASET IV Threat Generator FY 98	Sierra Technologies, Inc Buffalo, NY	Option	AMCOM, Huntsville, AL	Jun-96	Oct-98	3	8100	Yes	No	
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities												
P-1 Item Nomenclature:												
AIRBORNE COMMAND & CONTROL (AA0710)												
Program Elements for Code B Items:												
Code:												
Other Related Program Elements:												
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty												
Gross Cost	37.8	0.0	5.7	0.0	24.4	18.9	17.6	36.1	116.8	93.0	350.4	
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	37.8	0.0	5.7	0.0	24.4	18.9	17.6	36.1	116.8	93.0	350.4	
Initial Spares												
Total Proc Cost	37.8	0.0	5.7	0.0	24.4	18.9	17.6	36.1	116.8	93.0	350.4	
Flyaway U/C												
Wpn Sys Proc U/C												

Description: The Aviation Mission Planning System (AMPS) is a planning/battle synchronization tool that will automate aviation mission planning tasks, replacing inadequate manual procedures and providing generation of mission data in either hard copy or electronic formats. The AMPS includes tactical command and control (C2), mission planning, and mission management. The AMPS interfaces with the Maneuver Control System (MCS) and associated networks, providing the aviation commander with continuous situational awareness which allows the commander to rapidly adjust his plan to accomplish his assigned mission. The Army Airborne Command and Control System (A2C2S) functions as a highly mobile command post. When mounted in the UH-60 helicopter with auxiliary equipment, it provides tactical voice, data, and imagery digitized battlefield communications in both secure and nonsecure modes for Corps, Division, and Brigade commanders. The system provides battle commanders access to critical situational awareness and off-board national asset intelligence information via satellite communications, digitized battlefield communications links with Army combined arms team members, joint service and combined force elements, channel scanning, and intercommunications facilities for up to six operators, and joint interoperability as well as maritime and air traffic control communications.

Justification: FY 99 funding will procure 11 A2C2S systems, related system engineering, preproduction and data costs for the systems. The A2C2S is in response to real world needs of combat maneuver commanders to perform highly mobile and responsive digital, voice, and imagery C2 functions in the UH-60 helicopter. This system enables the commander and staff to interject critical C2 across the designated battle area without sacrificing access to information products or jeopardizing continuity of operations due to command post relocation. Interoperability is enhanced with this system by providing the capability to communicate digitally with Navy or Air Force close air support as well as relaying target information. This system supports close, deep, rear, and security operations and disaster relief, peacekeeping, drug interdiction, and both low and high intensity conflict missions. The A2C2S will assist in eliminating costly fratricide incidents via the capability to closely monitor and control operations. Satellite communications provide access to tactical communication systems

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AIRCRAFT COMMAND & CONTROL (AA0710)			Weapon System Type:			Date: February 1998		
ID	CD	Aircraft Cost Elements	FY 96			FY 97			FY 98			FY 99		
			TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
A		AMPS: AMPS Light Weight Computer (LCU) Systems Project Management Administration Nonrecurring Engineering Data Transfer Systems Peripheral Devices Logistics Support	1981 1209 1548 441 164 315	62 311	32 1									
		SUBTOTAL	5658											
		A2C2S: A2C2S Kits Preproduction Tooling System Engineering Data										22561 790 496 574	11	2051
		SUBTOTAL										24421		
		TOTAL	5658									24421		

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 1998
Appropriation / Budget Activity/Serial No:			Weapon System Type:		P-1 Line Item Nomenclature:						
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities					AIRBORNE COMMAND & CONTROL (AA0710)						
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Reven Avail	RFP Issue Date	
Fiscal Years											
AMPS Light Weight Computer (LCU)	Science Applications INC. International INC San Diego, CA	C/FP	CECOM, PM CHS	Apr-96	Jun-96	62	32	Yes	No		
Data Transfer Systems	Smith Industries Grand Rapids, MI	SS/FP	CECOM	Apr-96	Nov-96	311	1	Yes	No		
A2C2S	Naval Research Lab, Washington, DC	MIPR	Naval Research Lab	Jan-99	Dec-99	11	2051	No	Yes	Jul-98	
FY 96											
FY 99											
REMARKS:											

Date:

P-1 Item Nomenclature:

AIRBORNE COMMAND & CONTROL (AA0710)

February 1998

Date:

[illegible]

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:		Date: February 1998										
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Item Nomenclature: AVIONICS SUPPORT EQUIPMENT (AZ3000)										
Program Elements for Code B Items:		Other Related Program Elements:										
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	71.3	29.5	14.9	9.9	2.6	2.6	0.0	0.0	0.0	0.0	0.0	130.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	71.3	29.5	14.9	9.9	2.6	2.6	0.0	0.0	0.0	0.0	0.0	130.8
Initial Spares	1.3	2.3	0.9									4.4
Total Proc Cost	72.5	31.8	15.8	9.9	2.6	2.6	0.0	0.0	0.0	0.0	0.0	135.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Heads Up Display (HUD) AN/AVS-7 is a System which works in conjunction with the Aviator's Night Vision Imaging System (ANVIS) AN/AVS-6. The ANVIS/HUD collects critical flight information from aircraft sensors and converts this information into visual imagery. This system allows continuous heads up flight by the pilot without needing to look inward at the instrument panel. This provides significant operational and safety enhancements to Night Vision Goggle flight. The HUD is made up of two subsystems, an Aircraft Integration Kit (brackets, wiring harness, etc.) [A Kit] and an Interface Box, Control Panels and two Optical Displays per aircraft [B Kit]. The entire System weight ranges from 32 to 40 pounds per aircraft. The display unit head weight is approximately 140 grams. HUD is being acquired for the highest priority aircraft in the Army inventory.

JUSTIFICATION: The FY99 funds are required to procure retrofit upgrades for previously fielded HUDs for priority aircraft in the Army. The Army's capability to fly more effectively and safely at night will be met by the procurement of this system. The HUD, intended for the highest priority aircraft, will display critical flight information over the ANVIS image, reducing the need to divert the pilot's attention to look inward at the instrument panel.

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AVIONICS SUPPORT EQUIPMENT (A23000)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements	ID	CD	FY 96			FY 97			FY 98			FY 99		
			TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
ANVIS/HUD			14940	94	159	9877	34	291	2640			2555		
NOTE: FY96 and FY97 quantities in the database are not correct. The correct quantities are 94 and 34 respectively.														
TOTAL			14940			9877			2640			2555		

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No.												February 1998
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities												
P-1 Item Nomenclature:												
ANVIS/HUD (K35601)												
Program Elements for Code B Items:												
Other Related Program Elements:												
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty	1435	547	94	34								2110
Gross Cost	71.3	29.5	14.9	9.9	2.6	2.6	0.0	0.0	0.0	0.0	0.0	130.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	71.3	29.5	14.9	9.9	2.6	2.6	0.0	0.0	0.0	0.0	0.0	130.8
Initial Spares	1.3	2.3	0.9									4.4
Total Proc Cost	72.5	31.8	15.8	9.9	2.6	2.6	0.0	0.0	0.0	0.0	0.0	135.2
Flyaway U/C	0.047	0.052	0.159	0.287								0.060
Wpn Sys Proc U/C	0.050	0.055	0.159	0.291								0.062

DESCRIPTION: Heads Up Display (HUD) AN/AVS-7 is a System which works in conjunction with the Aviator's Night Vision Imaging System (ANVIS) AN/AVS-6. The ANVIS/HUD collects critical flight information from aircraft sensors and converts this information into visual imagery. This system allows continuous heads up flight by the pilot without needing to look inward at the instrument panel. This provides significant operational and safety enhancements to Night Vision Goggle flight. The HUD is made up of two subsystems, an Aircraft Integration Kit (brackets, wiring harness, etc.) [A Kit] and an Interface Box, Control Panels and two Optical Displays per aircraft [B Kit]. The entire System weight ranges from 32 to 40 pounds per aircraft. The display unit head weight is approximately 140 grams. HUD is being acquired for the highest priority aircraft in the Army inventory.

JUSTIFICATION: The FY99 funds are required to procure retrofit upgrades for previously fielded quantities of HUDs for priority aircraft in the Army. The Army's capability to fly more effectively and safely at night will be met by the procurement of this system. The HUD, intended for the highest priority aircraft, will display critical flight information over the ANVIS image, reducing the need to divert the pilot's attention to look inward at the instrument panel.

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: ANVIS/ HUD (K35601)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AIRCRAFT Flyaway Costs														
		Airframes / CFE	3487	94	37	1380	34	41						
		Avionics (ANVIS/ HUD)				2481								
		AN/AVS-6 Trade-In Program												
		Other GFE												
		Armament (FCR)	10684			3809			1572			1977		
		ECO (All Flyaway Components)												
		Other Costs (Halon)	14171			7670			1572			1977		
		Subtotal Flyaway Costs												
		Non-Recurring Costs												
		Tooling Equipment				910			738			248		
		Other (Installation)*	14171			8580			2310			2225		
		Total Flyaway												
		Support Cost												
		Testing				819			113			113		
		Fielding				71			98			98		
		Government Engineering	577			224								
		Peculiar Training Equipment				58								
		Publications Tech / Data												
		Engineering Change Orders	192			125			119			119		
		Other (Project Management)	769			1297			330			330		
		Subtotal Support Cost												
		Gross P-1 End Cost	14940			9877			2640			2555		
		Less: Prior Year Adv Proc												
		Net P-1 Full Funding Cost	14940			9877			2640			2555		
		Plus: P-1 CY Adv Proc												
		Other Non P-1 Costs	856											
		Initial Spares												
		Mods												
		TOTAL	15796			9877			2640			2555		

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 1998
Appropriation / Budget Activity/Serial No:			Weapon System Type:			P-1 Line Item Nomenclature:					
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities						ANVIS/HUD (K35801)					
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revis Avail	RFP Issue Date	
Fiscal Years											
Avionics (ANVIS/HUD)											
FY 96	TRACOR, Austin, TX	C/FPM-5(5)	CECOM	Jan-96	Jun-97	94	37	Yes	No		
FY 97	TRACOR, Austin, TX	C/Option	CECOM	Dec-96	Jan-98	34	41				
FY98	TRACOR, Austin, TX	C/Option	CECOM	Feb-98	*						
FY99	TRACOR, Austin, TX	C/Option	CECOM	Feb-99	*						
<p>* No new quantities of ANVIS/HUD systems are being procured.</p>											
<p>REMARKS: ANVIS/HUD is integrated into different aircraft in different FY's. ANVIS/HUD increase in unit cost from FY96 to FY97 is due to A Kit variations for different aircraft platforms.</p>											

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:		Date: February 1998										
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Item Nomenclature: TRAINING DEVICES (A23700)										
Program Elements for Code B Items:		Other Related Program Elements:										
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	14.0	29.0	7.4	13.0	0.0	0.0	0.0	0.0	0.0	0.0	63.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	14.0	29.0	7.4	13.0	0.0	0.0	0.0	0.0	0.0	0.0	63.4
Initial Spares												
Total Proc Cost	0.0	14.0	29.0	7.4	13.0	0.0	0.0	0.0	0.0	0.0	0.0	63.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Apache Integrated Training Program (AITP) will provide a training system which supports training for maintainers and operators. The AITP is an interactive computer-based training program that will provide new equipment and sustainment training in the field and at the schools. The training system includes:

- Maintenance trainers, which support individual task training of the AH-64A Airframe and subsystems:
 - a. Airframe, Engine, and Drivetrain Systems Trainer (AEDST)
 - b. Armament and Electrical Trainer (AET)
- Operator trainers:
 - a. modification of the Cockpit, Weapons, Emergency Procedures Trainer (CWEPT) to an Apache Crew Trainer (ACT), which vastly improves individual and crew training.
 - b. Apache Collective Training System (ACTS) leveraged technology.
 - c. Upgrade flight simulators for Eighth Army in Korea

JUSTIFICATION: The development and delivery of AITP maintenance trainers returns flyable category B aircraft, used as maintenance trainers, back into the warfighting fleet. The operator trainers will provide and sustain task proficiency and optimize the greater capabilities to support the development and use of scarce flying hours. In particular, the leveraged ACTS technology will better prepare units for exercises at the National Training Center (NTC) and provide combined arms simulation training with other combat arms through Combined Arms Tactical Trainers (CATT).

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: TRAINING DEVICES (A23700)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements	ID	CD	FY 96			FY 97			FY 98			FY 99		
			TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AIRCRAFT Flyaway Costs														
Airframes / CFE														
Avionics														
A. GFE														
Other GFE														
Armament (FCR)														
ECO (All Flyaway Components)														
Other Costs (Halon)														
Subtotal Flyaway Costs														
Non-Recurring Costs														
Tooling Equipment														
Other System Test														
Total Flyaway														
Support Cost														
Engine (leftover A model)														
Airframe PGSE														
Engine PGSE			28976			7390			13000					
Peculiar Training Equipment														
Publications Tech / Data														
Engineering Change Orders														
Other (specify) Net/ICS/Mtxsupt														
Subtotal Support Cost			28976			7390			13000					
Gross P-1 End Cost														
Less: Prior Year Adv Proc			28976			7390			13000					
Net P-1 Full Funding Cost														
Plus: P-1 CY Adv Proc			28976			7390			13000					
Other Non P-1 Costs														
Initial Spares														
Mods														
TOTAL			28976			7390			13000					

Exhibit P-5a, Budget Procurement History and Planning												
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities				Weapon System Type:		P-1 Line Item Nomenclature: TRAINING DEVICES (A23700)						
WBS Cost Elements: Fiscal Years		Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revis Avail	RFP Issue Date
Peculiar Training Devices A6X FY96		E-SYSTEM, Lexington KY		C/CPFF	Bluegrass Station SOFSA	Apr-96	May-97	2	1578	Yes	No	
Apache Collective Training System (ACTS) FY96		Boeing, Mesa, AZ		C/CPFF	USAAMCOM	Dec-97	Sep-00		18192	No	No	
Apache Sustainment Training Kit FY 96 Hardware FY 96 Courseware		Precision Micron Rsch; L.A. CA McDonnell Douglas Helicopter Systems (MDHS), Mesa, AZ.		C/FP S/FP	USAAMCOM USAAMCOM	Jul-96 Jul-96	Aug-96 Oct-97	45	22 1000	N/A N/A	N/A N/A	
FY 96 Courseware FY 96 Courseware FY96 Hardware/Storage/Maintenance		LSI, Jacksonville, FL LSI, Jacksonville, FL E-SYSTEM, Lexington KY		C/CPFF C/CPFF C/CPFF	NAWC NAWC Bluegrass Station SOFSA	Jul-96 Jul-97 Jul-96	Jan-97 Oct-97 Aug-96		1300 2700 193	N/A N/A N/A	N/A N/A N/A	
AITP Upgrade FY96 FY97		Gov't Requisitions E-SYSTEM, Lexington KY		C/FP C/CPFF	USAAMCOM Bluegrass Station SOFSA	May-96 Jan-97	Sep-96 Dec-97		1445 7390	N/A N/A	N/A N/A	
Simulator upgrades FY98		HTI, Arlington, VA		C/CPFF	STRICOM	Jun-98	Jun-00		13000	N/A	N/A	
REMARKS: Changed to LSI on Courseware because MDHS proposal costs exceeded the dollars available for the level of effort required.												

Exhibit P-40, Budget Item Justification Sheet											
Appropriation / Budget Activity/Serial No:		Date: February 1998									
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		COMMON GROUND EQUIPMENT (AZ3100)									
Program Elements for Code B Items:		P-1 Item Nomenclature:									
Code:		Other Related Program Elements:									
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty											
Gross Cost	0.0	31.5	27.8	20.7	27.1	30.1	36.6	50.2	64.5	55.1	343.4
Less PY Adv Proc											
Plus CY Adv Proc											
Net Proc (P-1)	0.0	31.5	27.8	20.7	27.1	30.1	36.6	50.2	64.5	55.1	343.4
Initial Spares											
Total Proc Cost	0.0	31.5	27.8	20.7	27.1	30.1	36.6	50.2	64.5	55.1	343.4
Flyaway U/C											
Wpn Sys Proc U/C											

DESCRIPTION: The Common Ground Equipment line supports aviation related Sets, Kits, and Outfits (AZ3510), Aviation Ground Support Equipment (AZ3520) and Airfield Support Equipment (AZ1710). The Sets, Kits, and Outfits (SKO) consist of shop sets, tool kits, and outfits configured to accomplish both routine and safety-of-flight maintenance repair functions on Army aircraft. The Aviation Ground Support Equipment (AGSE) is required to make Army aircraft and associated subsystems operational in their intended operational environments. This equipment is required to guide, control, inspect, test, adjust, calibrate, assess, gauge, assemble/disassemble, handle, transport, service, repair and overhaul aircraft and associated equipment. The Airfield Support Equipment (AFSE) provides fixed based, high tech systems that support Army airfields. These systems are the same or similar to the Federal Aviation Administration (FAA) services.

JUSTIFICATION:

Sets, Kits, and Outfits: FY 99 funding will achieve and sustain the operational readiness of all Army aviation field units, which operate AH-64, UH-60, CH-47, OH-58D and other Army aircraft. Sets, Kits, and Outfits (SKO) funding will also provide systems to correct safety-of-flight discrepancies which endanger both life and property. With more aircraft being added to the Army inventory, the fielding of new aviation units and the diversification of aviation missions creates an ever increasing requirement for SKO. New Aircraft Tool System (NATS) is a system of new tool kits and sets that provide the aircraft mechanic with high quality industrial grade tools supported by commercial warranties configured in boxes for instant inventory capability.

Exhibit P-40C Budget Item Justification Sheet				Date
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature		February 1998
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		COMMON GROUND EQUIPMENT (AZ3100)		
Program Elements for Code B Items		Code	Other Related Program Elements	
<p>Aviation Ground Support Equipment: FY 99 funding will achieve and sustain the operational readiness of all Army aviation field units, which are operating AH-64, UH-60, CH-47, OH-58D and other Army aircraft. Aviation Ground Support Equipment (AGSE) also provides a means to correct safety-of-flight discrepancies which endanger both life and property. With more aircraft being added to the Army inventory, the fielding of new aviation units and the diversification of aviation missions creates an ever increasing requirement for AGSE. The Shop Equipment Contact Maintenance (SECM) is a shelter designed to be mounted on a heavy variant 1 1/4 ton truck (HMMWV) and carry a tailored load of personnel, tools, supplies and repair parts necessary to perform aircraft repair and recovery missions at locations separate from the unit. The Self Generating Nitrogen Servicing Cart (SGNSC) is being developed to provide Army Aviation with 95% pure nitrogen gas to properly service/adjust aircraft accumulators, main rotor blades, landing gear struts and tires. The SGNSC will also be used to refill nitrogen bottles used at all levels of aviation maintenance. The Aircraft Cleaning/Deicing System (ACDS) will provide the Army with an Environmental Protection Agency (EPA) compliant system for all aircraft. EPA compliance is mandated by federal law to eliminate toxic run off of contamination into the environment.</p> <p>Airfield Support Equipment: FY 99 funds will procure and provide for joint service National Airspace Systems used in Army Air Traffic Control Towers. The new Enhanced Terminal Voice Switch (ETVS) will save Operational and Support (O&S) costs by replacing old, antiquated legacy systems with advanced, highly reliable switches. Funding will also ensure interoperability of Army air traffic control systems within the Department of Transportation while adhering to the Congressionally mandated FAA NAS modernization effort. The new tower automation packages will provide modern voice switching equipment that will ensure interoperability on Army air traffic control systems within the NAS and will replace outdated and unsupportable voice switches currently in the Army inventory. These systems will provide commonality of equipment and training for both crews and ground controllers. The new systems will support other services, host nations' interface requirements, and fixed base air traffic control facilities into the next century. These state of the art systems will reduce maintenance costs, increase reliability, and improve overall safety for Army Aviation.</p>				

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: COMMON GROUND EQUIPMENT (AZ3100)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
SETS, KITS AND OUTFITS			8,417			7,160			5,487			3,613		
AVIATION GROUND SUPPORT EQUIPMENT			10,262			9,457			9,133			9,488		
ITEMS LESS THAN \$2.0M (ELECT WAR-AIR)			83											
AIRFIELD SUPPORT EQUIPMENT			9,003			3,992			12,392			17,006		
TOTAL			27,765			20,609			27,012			30,107		

Exhibit P-40, Budget Item Justification Sheet												Date:	February 1998
Appropriation / Budget Activity/Serial No:												P-1 Item Nomenclature:	
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities												SETS, KITS AND OUTFITS (AZ3510)	
Program Elements for Code B Items:												Other Related Program Elements:	
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty													
Gross Cost	0.0	9.1	8.4	7.2	5.5	3.6	3.6	3.5	7.8	8.1	0.0	56.8	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc (P-1)	0.0	9.1	8.4	7.2	5.5	3.6	3.6	3.5	7.8	8.1	0.0	56.8	
Initial Spares													
Total Proc Cost	0.0	9.1	8.4	7.2	5.5	3.6	3.6	3.5	7.8	8.1	0.0	56.8	
Flyaway U/C													
Wpn Sys Proc U/C													

DESCRIPTION: Sets, Kits and Outfits (SKO) consists of shop sets, tool kits and outfits configured to accomplish both routine and safety-of-flight maintenance repair functions on Army aircraft. All items of SKO are Code A.

JUSTIFICATION: FY 99 funding will achieve and sustain the operational readiness of all Army aviation field units, which operate AH-64, UH-60, CH-47, OH-58D and other Army aircraft. Sets, Kits, and Outfits (SKO) funding will also provide systems to correct safety-of-flight discrepancies which endanger both life and property. With more aircraft being added to the Army inventory, the fielding of new aviation units and the diversification of aviation missions creates an ever increasing requirement for SKO. New Aircraft Tool System (NATS) is a system of new tool kits and sets that provide the aircraft mechanic with high quality industrial grade tools supported by commercial warranties configured in boxes for instant inventory capability.

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: SETS, KITS AND OUTFITS (A23510)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1.	A	New Aviation Tool Set (NATS) Hardware Fielding Program Management Support	6,832 12 150	3,681	2	6,084 25 173	4,773	1	3,386 12	2,033	2	3,212 11	1,875	2
2.	A	Non-divisional Shop Set Hardware Production Engineering Non-divisional Partial Shop Set	576 62 31	1	576	47			14			375	1	375
3.	A	International Standard Organization Shelters (ISO) (M31001) 60 Amp Shelters 100 Amp Shelters	142	3	47									
4.	A	New Aviation Tool Set - A (NATS-A) Hardware Fielding Program Management Support	536 76	312	2	2,096 20 53	1,074	2	2,061 14	897	2	15		
Reprogrammings from SKO (PBAS error)						-1,338								
TOTAL			8,417			7,160			5,487			3,613		

Exhibit P-5a, Budget Procurement History and Planning											
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities				Weapon System Type:		P-1 Line Item Nomenclature: SETS, KITS AND OUTFITS (AZ3510)				Date: February 1998	
WBS Cost Elements:		Contractor and Location		Contract Method and Type		Location of PCO		Award Date		Date of First Delivery	
Fiscal Years										QTY Each	
										Unit Cost \$000	
										Specs Avail Now?	
										Date Revisn Avail	
										RFP Issue Date	
1. <u>New Aviation Tool Set (NATS)</u>											
FY 95		Rock Island Arsenal (RIA)		MIPR		ATCOM		Jan-95		Oct-95	
FY 96		RIA		MIPR		ATCOM		Feb-96		Jul-96	
FY 97		RIA		MIPR		ATCOM		Apr-97		Nov-97	
FY 98		RIA		MIPR		AMCOM		Feb-98		Sep-98	
FY 99		RIA		MIPR		AMCOM		Feb-99		Sep-99	
2. <u>Non-divisional Shop Set</u>											
FY 96		Rock Island Arsenal (RIA)		MIPR		ATCOM		Jun-96		Dec-96	
FY 99		RIA		MIPR		ATCOM		Dec-98		Jun-99	
3. <u>International Standard Organization Shelters (ISO) (M31001)</u>											
FY 95		Brunswick Defense, Inc.		C/FP-O		ATCOM		Sep-95		Jul-96	
FY 96		Marion, VA		C/FP-O		ATCOM		Aug-96		Apr-97	
		Brunswick Defense, Inc.									
4. <u>New Aviation Tool Set - A (NATS-A)</u>											
FY 96		Rock Island Arsenal (RIA)		MIPR		ATCOM		Sep-96		Dec-96	
FY 97		RIA		MIPR		ATCOM		Mar-97		May-97	
FY 98		RIA		MIPR		AMCOM		Jan-98		Mar-98	
REMARKS:											

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:										Date:		
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities										February 1998		
P-1 Item Nomenclature:										AVIATION GROUND SUPPORT EQUIPMENT (A23520)		
Program Elements for Code B Items:										Other Related Program Elements:		
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	15.6	10.3	9.5	9.2	9.5	8.9	8.8	8.3	8.1	0.0	88.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	15.6	10.3	9.5	9.2	9.5	8.9	8.8	8.3	8.1	0.0	88.2
Initial Spares												
Total Proc Cost	0.0	15.6	10.3	9.5	9.2	9.5	8.9	8.8	8.3	8.1	0.0	88.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Aviation Ground Support Equipment (AGSE) is necessary to make an aircraft, or one of its associated systems or subsystems, operational in its intended environments. This includes all equipment required to guide, control, inspect, test, adjust, calibrate, assess, gauge, assemble, disassemble, handle, transport, store, actuate, service, repair and/or overhaul the aircraft system or subsystems. Included are such items as aviation ground power units, hydraulic test stands, etc.

JUSTIFICATION: FY 99 funding will achieve and sustain the operational readiness of all Army aviation field units, which are operating AH-64, UH-60, CH-47, OH-58D and other Army aircraft. Aviation Ground Support Equipment (AGSE) also provides a means to correct safety-of-flight discrepancies which endanger both life and property. With more aircraft being added to the Army inventory, the fielding of new aviation units and the diversification of aviation missions creates an ever increasing requirement for AGSE. The Shop Equipment Contact Maintenance (SECM) is a shelter designed to be mounted on a heavy variant 1 1/4 ton truck (HMMWV) and carry a tailored load of personnel, tools, supplies and repair parts necessary to perform aircraft repair and recovery missions at locations separate from the unit. The Self Generating Nitrogen Servicing Cart (SGNSC) is being developed to provide Army Aviation with 95% pure nitrogen gas to properly service/adjust aircraft accumulators, main rotor blades, landing gear struts and tires. The SGNSC will also be used to refill nitrogen bottles used at all levels of aviation maintenance. The Aircraft Cleaning/Deicing System (ACDS) will provide the Army with an Environmental Protection Agency (EPA) compliant system for all aircraft. EPA compliance is mandated by federal law to eliminate toxic run off of contamination into the environment.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (A23520)		Weapon System Type:		Date: February 1998		
Aircraft Cost Elements		FY 96		FY 97		FY 98		FY 99		
ID	CD	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
1. Non-Destructive Test Equipment (NDTE) X-Ray Machine Ultra Sound Eddy Current Harmonic Bond NDTE Fielding	A	1,698 519	121	14	272 112 322 640	10 24 24	27 5 13			
2. Flexible Engine Diagnostics System (FEDS) (A08701) Hardware FEDS Fielding FEDS T24 Upgrade FEDS Remote Monitor FEDS Production Engineering FEDS Cost Adjustment	A	4,089	2	2,045	21			5,012 10	2	2,506 12
3. Aviation Ground Power Unit (AGPU) (A00701) Hardware	A	2,394	11	218	3,482	16	218			
4. Fuel Quantity Gauge Testers (A07401) Hardware	A	208	40	5						
5. B-4 Maintenance Platforms (A05601) Hardware	A	174	50	3						
6. Shop Equipment Contact Maintenance (SECM) Hardware SECM Fielding Production Engineering	A							2,519 30 25	229	11 317 42
7. Self Generating Nitrogen Servicing Cart (SGNSC) Hardware SGNSC Fielding	A									
8. Aircraft Cleaning/Deicing System (ACDS) Hardware Program Documentation Fielding	A							1,632 28	24	68
9. Large Area Maintenance Shelter Hardware	A	646	1	646				4,250 37	85	50

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000
10. Aircraft Weighing Scales Hardware		A				97	30							
11. Aviation Vibration Analyzer (AVA)(Y2K) Hardware									1,500	1,348				
Reprogrammings from CH-47						787								
TOTAL			10,262			9,457			9,133			9,488		

Exhibit P-5a, Budget Procurement History and Planning									
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities					P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)				
WBS Cost Elements: Fiscal Years					Weapon System Type:				
Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revis Avail	RFP Issue Date
1. Non-Destructive Test Equipment (NDTE)									
X-Ray Machine									
FY 95	Lorad Corporation, Danbury, CT	C/FP-O	Aug-95	Nov-95	48	37	Yes	No	
FY 97	Lorad Corporation	C/FP-O	Jan-97	Apr-97	10	27	Yes	No	
Ultra Sound									
FY 95	Krautkramer-Branson Inc. Lewistown, PA.	C/FP-O	Sep-95	Nov-95	97	5	Yes	No	
FY 97	Krautkramer-Branson Inc.	C/FP-O	Jan-97	Mar-97	24	5	Yes	No	
Eddy Current									
FY 95	Staveley Instruments Inc. Kennewick, WA	C/FP-O	Aug-95	Nov-95	97	13	Yes	No	
FY 97	Staveley Instruments Inc.	C/FP-O	Jan-97	Apr-97	24	13	Yes	No	
Harmonic Bond									
FY 96	Staveley Instruments Inc.	C/FP-O	May-96	Aug-96	97	14	Yes	No	
FY 96	Staveley Instruments Inc.	C/FP-O	Jul-96	Oct-96	24	14	Yes	No	
2. Flexible Engine Diagnostics System (FEDS)									
(A08701)									
FY 95	Corpus Christi Army Depot	**	Aug-95	Sep-97	3	2,044	Yes	No	
FY 96	Corpus Christi Army Depot	**	Mar-96	Apr-98	2	2,045	Yes	No	
FY 98	Corpus Christi Army Depot	**	Jan-98	Feb-00	2	2,506			
REMARKS: ** Funds to Corpus Christi Army Depot (CCAD) through Industrial Operations Command (IOC).									

Exhibit P-5a, Budget Procurement History and Planning											
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities				Weapon System Type:		P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)					
WBS Cost Elements: Fiscal Years		Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Reven Avail	RFP Issue Date
<u>3. Aviation Ground Power Unit (AGPU)(A00701)</u>											
FY 95	Engineered Air Systems Inc. St. Louis, MO		C/FP/O	ATCOM	May-95	May-97	20	216	Yes	No	
FY 96	Engineered Air Systems, Inc.		C/FP/O	ATCOM	Sep-96	Sep-98	11	218	Yes	No	
FY 97	Engineered Air Systems, Inc.		C/FP/O	ATCOM	May-97	May-99	16	218	Yes	No	
<u>4. Fuel Quantity Gauge Tester (A07401)</u>											
FY 95	J.C. Air, Industrial Airport, KS		C/FP-O	Kelly Air Force Base	May-95	Sep-95	55	5	Yes	No	
FY 96	J.C. Air		C/FP	Kelly Air Force Base	Jun-96	Oct-96	40	5	Yes	No	
<u>5. B-4 Maintenance Platforms (A05601)</u>											
FY 96	D&D Machinery and Sales, Inc. San Antonio, TX		C/FP	Naval Air Systems Cmd	Jun-96	Nov-96	50	3	Yes	No	
<u>6. Shop Equipment Contact Maintenance (SECM)</u>											
FY 98	TBS		C/FP	AMCOM	Jan-98	May-98	229	11	No	N/A	
FY 99	TBS		C/FP-O	AMCOM	Jan-99	May-99	317	11	No	N/A	
<u>7. Self Generating Nitrogen Servicing Cart (SGNSC)</u>											
FY 99	TBS		C/FP-O	Kelly Air Force Base	Jan-99	Jan-00	24	68	Yes	No	
<u>8. Aircraft Cleaning/ Deicing System (ACDS)</u>											
FY 99	TBS		C/FP	AMCOM	Apr-99	Oct-00	85	50	No	N/A	
<u>9. Large Area Maintenance Shelter</u>											
FY 96	Clamshell Buildings, Inc. Ventura, CA		C/FP	ATCOM	Sep-96	Nov-96	1	646	Yes	No	
REMARKS:											

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 1998
Appropriation / Budget Activity/Serial No:		Weapon System Type:		P-1 Line Item Nomenclature:							
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities				AVIATION GROUND SUPPORT EQUIPMENT							
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date	
10. Aircraft Weighing Scales (AWS) FY 97	Kelly Air Force Base	C/FP	AMCOM	May-97	May-98	30	3	Yes	No		
11. Aviation Vibration Analyzer (AVA)(Y2K) FY 98	Signal Processing Systems San Diego, CA	C/FP	AMCOM	Mar-98	Jun-98	1348	1	No	N/A		
REMARKS:											

Exhibit P-40, Budget Item Justification Sheet												
Appropriation / Budget Activity/Serial No:		Date: February 1998										
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Item Nomenclature: AIRFIELD SUPPORT EQUIPMENT (AZ1710)										
Program Elements for Code B Items:		Other Related Program Elements:										
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	6.8	9.0	4.0	12.4	17.0	24.1	37.9	47.4	37.9	0.0	196.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	6.8	9.0	4.0	12.4	17.0	24.1	37.9	47.4	37.9	0.0	196.4
Initial Spares												
Total Proc Cost	0.0	6.8	9.0	4.0	12.4	17.0	24.1	37.9	47.4	37.9	0.0	196.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Airfield Support Equipment (Air Traffic Control) requirements will be met through a vast array of high-tech solutions which will provide a highly reliable air traffic control system. These systems will, as much as possible, be the same as the Federal Aviation Administration systems. The National Aerospace (NAS) modernization program provides engineering and automation modernization necessary for Army air traffic control facilities to interface with radar, tower control communications, and navigational aides. The Enhanced Terminal Voice Switch (ETVS) is an integrated voice switching system that is highly reliable, rapidly reconfigurable, and provides air traffic control personnel with access to both air-to-ground and ground-to-ground connectivity to support terminal air traffic control operations. The ETVS will replace the remaining electromechanical switches in the Army DoD/FAA inventory. The switch will be sizeable from 8 to 150 positions and provide for a combination of 75 frequencies/interphone circuits. The Fixed Base Precision Approach Radar system will incorporate state of the art primary radar features with a precision approach digitized display. The ancillary equipment includes navigational aides, radios, the Non-Directional Beacon, the Distance Measuring Equipment, the Instrument Landing System and the Tactical Air Navigation System. These systems support immediate need requirements tailored to meet aviation stationing plans throughout the world.

Exhibit P-40C Budget Item Justification Sheet			Date	February 1998
Appropriation / Budget Activity/Serial No.		P-1 Item Nomenclature		
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		AIRFIELD SUPPORT EQUIPMENT (AZ1710)		
Program Elements for Code B Items	Code	Other Related Program Elements		
<p>JUSTIFICATION: FY 99 funds will procure and provide for joint service National Airspace Systems used in Army Air Traffic Control Towers. The new Enhanced Terminal Voice Switch (ETVS) will save Operational and Support (O&S) costs by replacing old, antiquated legacy systems with advanced, highly reliable switches. Funding will also ensure interoperability of Army air traffic control systems within the Department of Transportation while adhering to the Congressionally mandated FAA NAS modernization effort. The new tower automation packages will provide modern voice switching equipment that will ensure interoperability on Army air traffic control systems within the NAS and will replace outdated and unsupportable voice switches currently in the Army inventory. These systems will provide commonality of equipment and training for both crews and ground controllers. The new systems will support other services, host nations' interface requirements, and fixed base air traffic control facilities into the next century. These state of the art systems will reduce maintenance costs, increase reliability, and improve overall safety for Army Aviation.</p>				

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Line Item Nomenclature: AIRCRAFT SUPPORT EQUIPMENT (AZ1710)		Weapon System Type:		Date: February 1998		
Aircraft Cost Elements		FY 96		FY 97		FY 98		FY 99		
ID	CD	Total Cost \$000	Qty Each	Unit Cost \$000	Total Cost \$000	Qty Each	Unit Cost \$000	Total Cost \$000	Qty Each	Unit Cost \$000
1.	A									
Radar Surveillance Central AN/FPN 66 (U126)										
Other Costs										
FPN Digitization		4,243	9	471	124	1	124			
Engineer, Furnish, & Install (EF&I)		265			197			100		
Fielding					15					
Other		293			428			432		
2. Communication Console System (CCS)										
Hardware										
Other Costs										
Engineer, Furnish, & Install (EF&I)		700			132			29		
Fielding		68			30					
3. Recorders/Reproducers										
Hardware		160	4	40						
Other Costs										
Engineer, Furnish, & Install (EF&I)		271								
Fielding										
Interim Contractor Support		50								
Second Level Engineering Support		80			80			80		
4. Precision Landing Approach										
Hardware										
Other Costs										
Engineer, Furnish, & Install (EF&I)					118			4,854	2	2,427
								2,091	1	2,427
SUBTOTAL		6,130			1,124			6,500		4,518

Exhibit P-5,
Weapon System Cost Analysis

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Line Item Nomenclature: AIRFIELD SUPPORT EQUIPMENT (AZ1710)		Weapon System Type:		Date: February 1998	
ID	CD	Aircraft Cost Elements	FY 96		FY 97		FY 98		FY 99	
			TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each	UnitCost \$000	TotalCost \$000	Qty Each
5.		National Airspace System (NAS)								
		A. Enhanced Terminal Voice Switch (ETVS) Hardware Engineer, Furnish, Install & Test (EFI&T) Fielding	430	1	430	675	10	194	2,028 1,856 432	12
		B. Tower/Army Radar Approach Control Hardware Engineer, Furnish, Install & Test (EFI&T) Fielding				418			5,352 2,054 594	7
		6. Ancillary Equipment	2,443			2,193			172	
		SUBTOTAL	2,873			2,868			12,488	
		TOTAL	9,003			3,992			17,006	

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 1998
Appropriation / Budget Activity/Serial No:			Weapon System Type:		P-1 Line Item Nomenclature:						
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities					AIRFIELD SUPPORT EQUIPMENT (AZ1710)						
WBS Cost Elements:	Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Reven Avail	RFP Issue Date
1. Radar Surveillance Central AN/FPN-86											
FY 96		Wilcox Kansas City Mo	C/FP	CECOM	Jan-97	Nov-97	9	471	Yes	No	
FY 97		Wilcox Kansas City Mo	C/FP	CECOM	Mar-97	Aug-98	1	124	Yes	No	
2. Recorders/Reproducers											
FY 96		Federal Aviation Administration (FAA) Washington, DC	C/FP-O	FAA	Apr-96	Oct-96	4	40	Yes	No	
3. Precision Landing Approach											
FY 95		Raytheon Cambridge, MA	C/FP	CECOM	May-95	Nov-97	1	2,453	Yes	No	
FY 98		Raytheon Cambridge, MA	C/FP-O	CECOM	Jun-98	Aug-99	2	2,427	Yes	No	
FY 99		Raytheon Cambridge, MA	C/FP-O	CECOM	Jan-00	May-01	1	2,427	Yes	No	
REMARKS:											

Exhibit P-5a, Budget Procurement History and Planning										Date:
P-1 Line Item Nomenclature:										February 1998
Weapon System Type:										
AIRFIELD SUPPORT EQUIPMENT (AZ1710)										
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revis Avail	RFP Issue Date
4. National Airspace System (NAS)										
A. Enhanced Terminal Voice Switch (ETVS)										
FY 96	Federal Aviation Administration (FAA) Washington, DC	C/FP	FAA	Dec-96	Aug-97	1	430	Yes	No	
FY 98	Federal Aviation Administration (FAA) Washington, DC	C/FP-O	FAA	Feb-98	Aug-98	10	194	Yes	No	
FY 99	Federal Aviation Administration (FAA) Washington, DC	C/FP-O	FAA	Feb-99	Aug-99	12	169	Yes	No	
B. Tower/Army Radar Approach Control										
FY 99	Federal Aviation Administration (FAA)	C/FP	FAA	Mar-99	Mar-00	7	765	Yes	No	
REMARKS:										

Exhibit P-40, Budget Item Justification Sheet										Date:	February 1998	
Appropriation / Budget Activity/Serial No:										P-1 Item Nomenclature:		
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities										AIRCREW INTEGRATED SYSTEMS (AZ3110)		
Program Elements for Code B Items:										Other Related Program Elements:		
Code:										RDTE: 643801(DB45) and 654801(DC45)		
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	25.7	9.1	7.1	11.3	12.2	9.1	4.5	1.4	21.5	35.2	349.4	489.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	25.7	9.1	7.1	11.3	12.2	9.1	4.5	1.4	21.5	35.2	352.6	489.7
Initial Spares												
Total Proc Cost	25.7	9.1	7.1	11.3	12.2	9.1	4.5	1.4	21.5	35.2	349.4	489.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Aircrew Integrated Systems (ACIS), formerly Aviation Life Support Equipment (ALSE), addresses those items of equipment that are used to sustain Army aircrews and troops throughout the flight profile, enhancing mission performance and aircrew survivability during operational missions, aircraft crash, and the post-crash period prior to rescue. The ACIS items that accomplish the aircrew-aircraft integration functions include aircraft cockpit air bags, chemical/biological protective mask blowers, helicopter oxygen systems, nuclear flash and laser eye protection, helmets, (including helmet mounted display and head tracker technology integration), aircrew microclimatic conditioning systems, flotation devices, survival kits and equipment, NBC warning, decontamination and filtration systems, and a Nondevelopmental Item demonstration program for Digital Source Collector/Flight Data Recorder voice and data recorder for bussed and non-bussed Army rotary wing aircraft.

JUSTIFICATION: FY99 funding will provide for acquisition of the Cockpit Air Bag System (CABS) for UH-60 Blackhawk helicopters to improve crash survivability and reduce potential injuries and fatalities. The CABS includes an "A" kit (aircraft modification that provides for adaptation of CABS to the aircraft, e.g., electrical power, hard points and miscellaneous attachment hardware) and a "B" kit (CABS components, including crewmember air bag modules, crash sensor, gas generator, and system packaging). Funding will permit incorporation of CABS into part of the UH-60 Blackhawk Force Package One aircraft.

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)			Weapon System Type:			Date: February 1998		
Aircraft Cost Elements			FY 96			FY 97			FY 98			FY 99		
ID	CD		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
			\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
HARDWARE:														
1.	A	Aircrew Integrated Helmet System (AIHS) Laser Eye Protective Visor	2455	6546	0.4									
2.	A	M48/M49 Aviator Mask-Lightweight Motor Blower (LWMB)	2063	2140	1									
3.	B	Cockpit Air Bag System (CABS):												
		UH-60 Blackhawk - Inertia Reels				2254	2324	1	2520	140	18			
		UH-60 Blackhawk - Low Rate Initial Production (LRIP)							4036	224	18	6714	373	18
		UH-60 Blackhawk - Production												
Subtotal Hardware Costs			4518			2254			6556			6714		
Non-recurring Production - CABS:			1900			6246								
Engineering Change Proposal - CABS: UH-60 Blackhawk									4000					
Installation of Kits - CABS: UH-60 Blackhawk												1456		
Non-recurring Production-Digital Source Collector/Flight Data Recorder (FDR)						1436								
Project Management Administration			447			1182			1300			730		
Subtotal Hdwr, Installation, ECP and Admin Costs			6865			11118			11856			8900		
SUPPORT COSTS:														
Fielding			209			168			334			150		
Subtotal Support Costs			209			168			334			150		
TOTAL			7074			11286			12190			9050		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 1998
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities					Weapon System Type: P-1 Line Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)					
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
1. <u>Aircrew Integrated Helmet System (AIHS)</u> <u>Laser Eye Protective Visor</u> FY 96	Gentex Corp., Carbondale, PA	C/FP	ATCOM, St. Louis, MO	Jan-97	Aug-97	6546	0.4	Yes		
2. <u>M48/M49 Aviator Mask-Lightweight Motor Blower (LWMB)</u> FY 96	Microne1, Inc., Vista, CA	C/FP (OP)	ERDEC, APG, MD	Aug-96	Nov-96	2140	1	Yes		
3. <u>Cockpit Air Bag System (CABS)</u> FY 97 (Inertia Reels)	H. Koch and Sons, Inc., Anaheim, CA	C/FP	AMCOM, Huntsville, AL	Sep-97	Nov-97	2324	1	Yes		
FY 98 (LRIP)	Simula, Inc., Phoenix, AZ	SS/FP	AATD, Ft. Eustis, VA	Jul-98	Feb-99	140	18	Yes		
FY 98 (Prod)	Simula, Inc., Phoenix, AZ	SS/FP	AATD, Ft. Eustis, VA	Sep-98	Mar-99	224	18	Yes		
FY 99	TBS	C/FP	AMCOM, Huntsville, AL	Mar-99	Sep-99	373	18	Yes		
REMARKS: FY 98 CABS buy is sole source to Simula, Inc. (RDT&E Developer).										

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities												
P-1 Item Nomenclature:												AIR TRAFFIC CONTROL (AA0050)
Program Elements for Code B Items:												
Code:												Other Related Program Elements:
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	44.4	1.0	12.5	13.5	5.7	5.7	8.9	38.8	29.6	34.8	0.0	194.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	44.4	1.0	12.5	13.5	5.7	5.7	8.9	38.8	29.6	34.8	0.0	194.8
Initial Spares												
Total Proc Cost	44.4	1.0	12.5	13.5	5.7	5.7	8.9	38.8	29.6	34.8	0.0	194.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Air Traffic Control equipment contained in this budget cycle are Tactical Terminal Control System (TTCS), Air Traffic Navigation Integration and Coordination System (ATNAVICS), and the Tactical Airspace Integration System (TAIS). The TTCS is providing secure, jam-resistant radio communication with manpack capabilities to remote landing and pickup zones along the forward edge of the battle area. The ATNAVICS will provide all weather instrument flight capabilities to include enroute, terminal and radar precision approach and landing services to all Army, other services, and allied aircraft. The TAIS will provide a highly mobile airspace deconflictional system providing Army Airspace Command and Control (A2C2) and air traffic control capabilities. It will interface with all Tactical Command and Control Systems while providing commanders with automated A2C2 capability to support all Task Force XXI digitization initiatives into the next century.

JUSTIFICATION: The FY 99 funding will provide for the production of the ATNAVICS, the continued effort and production of the TAIS, and the fielding of the TTCS. This new family of tactical air traffic control systems will replace current generation equipment that is antiquated and not economically supportable. These systems will be compact, high mobility, quick to install and will be able to keep pace with the fast tempo of the modern battlefield. The continued acquisition of these air traffic control systems will support present and future warfighting concepts and assist the maneuver commander/Army aviator by providing significant improvements in the area of secure communications, data processing automation, equipment reliability, survivability, and transportability.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Line Item Nomenclature: AIR TRAFFIC CONTROL (AA0050)		Weapon System Type:		Date: February 1998	
Aircraft Cost Elements		FY 96		FY 97		FY 98		FY 99	
ID	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each
1. Tactical Terminal Control System (TTCS) (W614) Hardware Non Recurring Costs Interim Contractor Support Fielding GFE Other Costs	A	9,594	26	369	7,940	26	305		
								150	
2. Tactical Airspace Integration System (TAIS) Hardware Non Recurring Costs Interim Contractor Support Fielding Testing Other Costs		2,500	1	2,500	3,925	1	3,925	1,500	1
								182	
								100	
3. Air Traffic Navigation and Integration System (ATNAVICS) Hardware Non Recurring Costs Interim Contractor Support Fielding Testing Other Costs								3,418	1
								267	
								54	
TOTAL		12,545			13,502			5,671	

Exhibit P-5a, Budget Procurement History and Planning										Date:	February 1998										
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		Weapon System Type:		P-1 Line Item Nomenclature:																	
WBS Cost Elements: Fiscal Years		Contractor and Location		Contract Method and Type		Location of PCO		Award Date		Date of First Delivery		QTY Each		Unit Cost \$000		Specs Avail Now?		Date Revisn Avail		RFP Issue Date	
1. Tactical Terminal Control System (TTCS)																					
FY 96		Magnavox Ft. Wayne, IN		C/FP-O		CECOM		Mar-96		Jun-97		26		369		Yes		No			
FY 97		Magnavox Ft. Wayne, IN		C/FP-O		CECOM		Jan-97		Mar-98		26		305		Yes		No			
2. Tactical Airspace Integration System (TAIS)																					
FY 96		Motorola Phoenix, AZ		CPFP		MICOM		Sep-96		Mar-97		1		2,500		Yes		No			
FY 97		Motorola Phoenix, AZ		CPFP		MICOM		Nov-96		Mar-97		1		2,387		Yes		No			
FY 99		Motorola Phoenix, AZ		CPFP		AMCOM		Feb-99		Nov-99		1		1,500		Yes		No			
3. Air Traffic Navigation and Integration System (ATNAVICS)																					
FY 99		Raytheon Cambridge, MA		C/FP-O		CECOM		Feb-99		May-00		1		3,418		Yes		No			
REMARKS:																					

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity / Serial No:												February 1998
P-1 Item Nomenclature:												
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities												
INDUSTRIAL FACILITIES (A23300)												
Program Elements for Code B Items:												
Code:												
Other Related Program Elements:												
Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog	
Proc Qty												
Gross Cost	393.6	2.8	2.8	2.0	1.5	1.5	1.5	1.6	1.6	0.0	410.9	
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	393.6	2.8	2.8	2.0	1.5	1.5	1.5	1.6	1.6	0.0	410.9	
Initial Spares												
Total Proc Cost	393.6	2.8	2.8	2.0	1.5	1.5	1.5	1.6	1.6	0.0	410.9	
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish, modernize, expand and replace facilities owned by the Army and provide Production Support and Equipment Replacement (PSR) of Government owned equipment used in production, production testing and depot level maintenance of Aircraft items. Also provides funding for the Value Engineering (VE) program to stimulate activity for reducing manufacturing, acquisition, operation and support costs.

JUSTIFICATION: The FY99 requests will provide Digital Photo Equipment, Data Reduction Equipment, Vibration/Data Bus Software, test equipment and other equipment and instrumentation. This equipment is used in production acceptance testing of APACHE, Black Hawk, and aviation systems. Funding also supports rebuilds, upgrades and equipment rehabilitation of government owned equipment located within contractor facilities and value engineering support and training on various aircraft systems in production.

	FY 1996	FY 1997	FY 1998	FY 1999
PIF	1.902	1.205	1.174	0.651
VE	0.857	0.813	0.828	0.842
TOTAL	2.759	2.018	2.002	1.493

Exhibit P-5, Weapon Aircraft Cost Analysis			Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities				P-1 Line Item Nomenclature: INDUSTRIAL FACILITIES (AZ3300)				Weapon System Type:		Date: February 1998		
Aircraft Cost Elements			ID	FY 96			FY 97			FY 98			FY 99		
			CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
				\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
19X8173 PSR, Stratford Army Engine Plant Provided for emergencies & real property repairs.				0.281											
19X8181 PSR, Bell Helicopter Textron Rebuilds, upgrades/equip rehab of government owned equipment.				0.400			0.235			0.233					
19X8189 PSR General Electric Blisk Fac. Rebuilds, upgrades/equip rehab of government owned equipment.				0.518			0.370			0.341					
09X5072 PSR, Ft. Rucker Test Facilities Provides rehab, replacement of equipment/ Instrumentation used in production of various aircraft weapon systems.				0.703			0.600			0.600			0.651		
19X0016 Value Engineering, Support				0.630			0.592			0.548			0.552		
19X0017 Value Engineering, Training				0.176			0.160			0.150			0.150		
19X0025 Value Engineering, Prog Coord.				0.051			0.061			0.130			0.140		
TOTAL				2.759			2.018			2.002			1.493		

Exhibit P-40, Budget Item Justification Sheet												Date:
Appropriation / Budget Activity/Serial No:												February 1998
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities												P-1 Item Nomenclature:
AIRBORNE COMMUNICATIONS (AA0705)												
Program Elements for Code B Items:												
Code:												Other Related Program Elements:
	Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Prog
Proc Qty												
Gross Cost	12.1	10.0	24.6	39.3	46.4	41.9	44.3	0.0	23.3	19.6	61.4	322.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	12.1	10.0	24.6	39.3	46.4	41.9	44.3	0.0	23.3	19.6	61.4	322.9
Initial Spares												
Total Proc Cost	12.1	10.0	24.6	39.3	46.4	41.9	44.3	0.0	23.3	19.6	61.4	322.9
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

Airborne Communications include Havequick II (HQ II) and the AN/ARC-220 high frequency (HF) Nap-of-the-Earth (NOE) Communications. The Air Force has upgraded the Havequick communications family to Havequick II and it has become the standard for joint service communications. The HQ II is one of six aviation systems which are required to support digitization of the battlefield. The HQ II communications is an electronic-counter-counter measure (ECCM) capable UHF-AM radio set required for joint service communication. Efforts are on-going to standardize all Army aircraft with HQ II configurations and ground timing systems which are required for synchronization of Army HQ II nets. The AN/ARC-220 HF system meets the Army's modernization plan by providing reliable, secure communications at ranges beyond line of sight. The AN/ARC-220 HF incorporates automatic link establishment (ALE) to eliminate manual searches for workable frequencies, Night Vision compatible lighting and ECCM capabilities while allowing Army aviation to communicate securely at NOE altitudes. This capability allows the commander to dominate the maneuver battle while protecting his force. The AN/ARC-220 HF communications system is also capable of transmitting data and position, facilitating the winning of the information war.

Justification:

FY99 funding procures 512 AN/ARC-220 radios, 180 VRC-100 ground radios, 760 A-Kits and other associated program support activities. The AN/ARC-220 HF NOE communications system supports digitization of the battlefield and enhances joint service communications. The AN/ARC-220 HF communications system supports the five (5) Army modernization objectives: project and sustain the force, protect the force, win the battlefield information war, conduct precision strikes throughout the battlefield, and dominate the maneuver battle.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		P-1 Line Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)		Weapon System Type:		Date: February 1998		
Aircraft Cost Elements		FY 96		FY 97		FY 98		FY 99		
ID	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
1. AN/ARC-164 Havequick II Recurring Production: VRC-83 Radio Remote Panel Mod Kits IFM Project Management Administration Fielding										
		1735	250	7	1790	60	30	3601	7	
		147			2249	351	6	249		
		1023			923					
2. AN/ARC-220 NOE Radio Nonrecurring A-Kit integration Recurring Production: AN/ARC-220 Radio VRC-100 Ground Radio A-Kits A-Kit Installation Warranty Engineering Services Other Recurring (Non-bussed peripheral) Program Management Administration System Test Engineering Change Orders Data Support Equipment-Test Program Set Maintenance Model Radios Fielding Other: Force XXI/Digitization										
		10326			3227			7287		
		1764	73	24	6624	276	24	17567	743	24
					2975			4774	155	31
					2138			10492		
					355			1689		
		2			252			355		
					3122			69		84
		3691			3247			1387		1383
		70			580					
		1114			979			1742		233
					728			500		250
					572					
		360	6	60	2821	47	60	518		1481
		285			1292					
		4052			1563					
TOTAL		24569			39287			46380		41911

Exhibit P-5a, Budget Procurement History and Planning											
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities				Weapon System Type:		P-1 Line Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)				Date: February 1998	
WBS Cost Elements: Fiscal Years		Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revisn Avail	RFP Issue Date
Havequick II Mod Kils											
FY96		Magnavox	C/FP	Warner Robins AFB	Apr-96	Apr-97	250	7	Yes		
FY97		Magnavox	C/FP	Warner Robins AFB	Jan-97	Jan-98	503	7	Yes		
AN/ARC-220 NOE Communications System											
FY96		Rockwell International	C/FP	CECOM	Oct-96	Aug-97	73	24	Yes		
FY97		Rockwell International	Option	CECOM	Sep-97	Jul-98	276	24	Yes		
FY98		Rockwell International	Option	CECOM	Feb-98	Jan-99	743	24	Yes		
FY99		Rockwell International	Option	CECOM	Jan-99	Dec-99	512	24	Yes		
AN/VR-100 Ground Radio*											
FY98		Rockwell International	Option	CECOM	Feb-98	Jan-99	155	31	Yes		
FY99		Rockwell International	Option	CECOM	Jan-99	Jan-99	180	30	Yes		
Maintenance Model Radio*											
FY96		Rockwell International	Option	CECOM	Oct-96	Aug-97	6	60	Yes		
FY97		Rockwell International	Option	CECOM	Jul-97	May-98	47	60	Yes		
REMARKS: * Option to the AN/ARC-220 EMD contract.											

